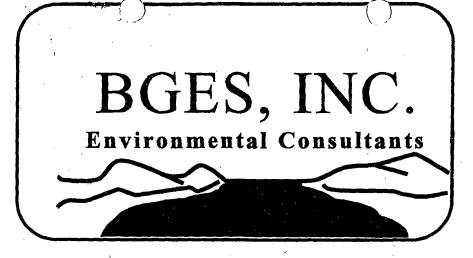
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LOTS 8A, 10, 11, AND 12; BLOCK 26A; EAST ADDITION ANCHORAGE, ALASKA

PHASE H ENVIRONMENTAL SITE ASSESSMENT

Pump directly to Surfulor Bucket.

RECEIVED

SEP 2 3 2004

DEPT. OF ENVIRONMENTAL CONSERVATION

Submitted to:

PAUL MANEY

Submitted by:

BGES, INC.

P.O. Box 110126 Anchorage, Alaska 99511-0126 (907) 644-2900 Eagle River Office (907) 696-2437

SEPTEMBER 2004

USEPA SF 1373714

04-038-01



SEP 2 3 2004

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1.0 INTRODUCTION

BGES, Inc. (BGES) was retained by Mr. Paul Maney, owner of the property located at Lots 8A, 10, 11, and 12, Block 26A, East Addition Subdivision (hereafter referred to as the subject property), to conduct a Phase II Environmental Site Assessment (ESA). The subject property is located on the north side of 4th Avenue, between Gambell Street and Hyder Street in Anchorage, Alaska (Photograph 1 in Appendix A and Figure 1). The work was performed in accordance with our proposal dated August 5, 2004, with notice to proceed by receipt of our proposal, signed by Paul Maney on August 5, 2004.

The fieldwork portion of the Phase II ESA, which occurred on August 28, 2004, entailed excavation of six test pits, removal of five hydraulic lifts, removal of four underground storage tanks (USTs), and removal of some associated contaminated solls. The laboratory results indicated that the soils remaining after excavation of the hydraulic lifts and the stockpiled soils had diesel range organics (DRO) concentrations exceeding Alaska Department of Environmental Conservation (ADEC) cleanup Standards. In addition, the soils in Test Pits 1 through 3 exhibited tetrachlorethylene (PCE) concentrations exceeding the ADEC cleanup criterion (the soil samples from TP-4 through TP-6 were not tested for PCE). Photographs of the fieldwork are included in Appendix A.

A spill notification form was issued to the ADEC on September 17, 2004, along with a copy of the analytical results and a request to dispose of the stockpiled contaminated soils. In a response on September 22, 2004, the ADEC provided their approval (Appendix B).

2.0 BACKGROUND

The site is currently undeveloped and used as a parking lot for the Anchorage Job Center. The surface at the property is unpaved and generally level. An Alaska Communications System antenna tower is situated on the southeast portion of the property.

2.1 Property History

The property was formerly occupied by a variety of businesses, including C&K Cleaners (which may have been a drycleaners) from approximately 1968 through 1970, and NC Tire Center, which was the last occupant of the bidldiag on site. Table 1 summarizes the past occupancy of the subject property. A brief recomaissance performed prior to Phase II ESA activities indicated evidence of the presence of two hydraulic lifts that were still in the ground. In addition, an underground storage tank

(UST) was reportedly situated near a power pole in the northeast portion of the property. Subsequent assessment indicated that five lifts and four USTs were present at the site. Figure 2 shows the layout of the subject property.

2.2 Review of Aerial Photographs

Aerial photographs of the vicinity of the property taken in 1950, 1960, 1970, 1975, 1976, 1977 and 1978 were briefly reviewed, and the June 2, 1977 photograph was chosen to print at a scale of 1 inch equal to 100 feet.

The June 23, 1950 photograph revealed that the subject property was developed at that time. There was what appeared to be a house on the west end of the property near Gambell Street. On the east end of the property, there was a long thin building that was oriented in a north-south direction with cars parked on both the east and west sides. In the north-central portion of the property near the alley was a small building. Hyder Street was not visible at this time. Both 4th Avenue and Gambell Street appeared to be paved. The area around the subject property was developed with a mixture of residential and commercial uses. The Native Hospital to the north was under construction.

The May 14, 1960 aerial photograph revealed that the house on the west end of the property was replaced with a larger building with cars parked around it. The building on the east end appeared to be the same as seen in the previous photograph. The building in the north-central portion of the property appeared larger than previously observed. Hyder Street to the east of the property was present in this photograph.

The April, 1970 aerial photograph showed that the there was no building on the west end of the property and that the western portion of the property was used for parking. On the east end of the property was an "L"-shaped building with the long axis parallel to Hyder Street and the short leg parallel to and near the alley. There were cars and trucks parked on the east side of the building and what appeared to be a large pile of tires on the west end of the building.

The June 27, 1975 and October 7, 1976 aerial photographs were reviewed and the subject property appeared to be essentially the same as in the previous photograph.

The June 2, 1977 photograph, which is included as Figure 3, appears similar to the earlier photograph for the subject property. The "L"-shaped building is present on the northeast end of the lot. The eastern half of the lot is open and has a few parked cars. A pile of what appears to be tires is still Lots SA, 10, 11, and 12, Block 26A; Phase II ESA

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04-038-01

encountered sand and gravel across the site. Test pit logs are included in Table 2. The locations of the test pits are shown on Figure 2.

4.2 Removal of Hydraulic Lifts and Associated USTs

BC Excavation provided a Deere 200C LC tracked excavator and several laborers for investigation and removal of subsurface features left in place after the demolition of the former NC Tire Center. Based on surface observations, there appeared to be two hydraulic lift cylinders, about thirty feet apart present in the area of the former building. During excavation of the southern cylinder, it was noted that this cylinder was actually two connected cylinders (Photograph 5 in Appendix A). In addition, a buried tank, assumed to be the hydraulic oil reservoir for the lift cylinders, was found approximately five feet south of the joined cylinders (Photograph 6 in Appendix A). There were no pipes or hoses connecting the cylinders and the tank. The tank was full of what appeared to be hydraulic oil, which was pumped into a 55-gallon drum. Approximately 40 gallons of dark red liquid were removed from the tank, which was then lifted and placed on a plastic liner. Soil Sample SLT-1, was taken from the area where the tank had been sitting. There was no staining or odor in the area. The set of joined lift cylinders was removed and placed on the plastic liner. Soil Sample SLC-2 was collected from the soil beneath the cylinders; again no staining or odors were noted.

Excavation was continued in the area of the northern cylinder, and a fourth cylinder was found in between the northern and southern cylinders. This middle lift was removed and placed on the plastic liner. Sample MLC-3 was collected beneath where the middle cylinder was situated.

The northern cylinder was found to be encased in a cement vault. The vault had a cement cover and was approximately two feet wide, six feet long and six feet deep with a connected cement bottom. Also found inside due vault was a hydraulic oil tank which had liquid inside. About 40 gallons of liquid were pumped off into a 55-gallon drum. There was loose soil within the vault with dark staining, as was the ioside of the walls of the vault (Photograph 7 in Appendix A). The soils had a strong hydrocarbon odor. Both the cylinder and the reservoir tank were removed and placed on the plastic liner. The lid and part of the north wall of the vault were removed and placed in a separate pile outside of the excavation.

During clearing of the soil around the cement vault, a fifth hydraulic cylinder was uncovered to the east of the other cylinders (Photograph 8 in Appendix A). This cylinder was also removed and sample ELC-6 was taken underneath where the cylinder had been situated.

The cement vault was broken into several pieces and removed (Photograph 9 in Appendix A). All of the stained soil from within the vault was stockpiled in separate stockpile on a liner and covered with the liner material. Likewise, the stained concrete was segregated into a separate stockpile from the other concrete. After all of the concrete was removed and all of the visibly stained soil was removed soil Sample CP-7 was collected in the area below where the vault was formerly situated.

The next area to be investigated was to the north, near the alley and the power pole, which was the area suspected to have a buried heating oil tank. A tank was exposed, with the top approximately four feet below surface (Photograph 10 in Appendix A). There was no piping connected to the tank and several openings along the top of the tank, where connections would normally be, were observed. A total of approximately 100 gallons of liquid was found in the tank and was pumped into two 55-gallon drums. While clearing the remaining soil from around the tank, a second tank was found below the first tank and extending further north. This second tank was found to be completely dry inside (Photograph 11 in Appendix A). After pumping out the first tank, it was removed and set outside of the excavation (Photograph 12 in Appendbx A). Sample T1E-4 was then collected beneath where the east end of the first (upper) tank was situated. The soil around the second tank was cleared in preparation for its removal. There were several pipes still connected to the second tank but they all terminated a few feet from the tank. Sample T2B-5 was collected from beneath the approximate center of where the second tank had been situated.

Due to the proximity of this excavation to the power pole and a buried natural gas utility line in the alley, no additional excavation was performed in this area and as soon as the tank was removed, the excavation was backfilled. The two tanks removed were approximately 3.5 feet in diameter and 12 feet long, which would correspond to a capacity of between 950 and 1100 gallons each. Both tanks were very rusty and corroded on the outside but did not have any visible holes. During removal, the tanks were partially crushed and in one case a puncture hole was made near the top of the tank, but no liquid was spilled. The tanks were then loaded onto a trailer for disposal (Photograph 13 in Appendix A).

Five loads of clean fill were brought to the site to be used during backfilling. Backfilling was accomplished in lifts of approximately two feet and compacted with a vibratory compactor. The entire excavated area was backfilled and compacted back to approximately the original surface elevation (Photograph 14 in Appendix A).

4.3 Disposition of Excavated Material

During excavations, multiple pieces of concrete footing were encountered and stockpiled on site. Also black iron pipe, assumed to be drain pipe was encountered and stockpiled along with other metallic material (Photograph 15 in Appendix A).

The two heating oil tanks, the two hydraulic oil reservoir tanks and the five hydraulic lift cylinders were loaded into a lined dump truck box with a lined lowboy trailer and hauled off site for disposal at Alaska Metal Recycling. All of the drummed liquids from the various tanks were removed from the site for disposal at Emerald Alaska.

Two piles of excavated concrete, one clean and one stained, were left on site after the initial excavation activities were completed. The stained soil from within the concrete vault was also left on site with a liner under and covering the pile (Photograph 14 in Appendbx A). On August 30, 2004, the 30 cubic yards of clean concrete were loaded and hauled to Alaska Basic Industries, a division of Anchorage Sand & Gravel, for reclamation. The stained concrete and the metallic debris were loaded and taken to the Anchorage Regional Landfill. A total of 7,660 pounds of material was disposed in this manner. Disposal documentation is included in Appendix C.

4.4 Soil Sampling and Analysis

During test pit excavation and hydraulic lift and UST removal, soil samples were collected for headspace screening with a photoionization detector (PID). The samples were collected from various depths to characterize the subsurface soils and to determine which samples should be submitted for laboratory analyses. The screening samples were collected using clean, stainless-steel spoons and placed in sealed plastic bags. The samples were allowed to warm to ambient temperatures before being screened within approximately 1 hour of collection. The bags were shaken for approximately 15 seconds prior to inserting the probe of a PID into the bag. The maximum reading on the PID was then recorded. The PID was calibrated with 100 parts per million isobutylene calibration gas prior to use. The results of the PID screening are included on Table 2.

Samples for laboratory analyses were selected from the test pits based on the maximum PID readings, to characterize subsurface conditions across the property. Samples from the hydraulic lift and UST removal locations were selected from undisturbed soils beneath the tanks after their removal to

document the conditions of the remaining soils. Soil samples were collected from the stockpiled soils to characterize the soils for disposal.

The soil samples were placed in a chilled cooler and were delivered to SGS Laboratory in Anchorage imder chain of custody protocol. The samples were analyzed for Gasoline Range Organics (GRO) by Alaska Method (AK) 101; benzene, toluene, ethylbenzene and xylenes (BTEX) by SW8021B, diesel range organics (DRO) by AK 102, residual range organics (RRO) by AK 103. In addition, the samples collected from Test Pits 1 through 3 were analyzed for volatile organic compounds (VOCs) by SW 8260 because of the former presence of a drycleaner in the western portion of the property. As a quality control measure, trip blank samples prepared by the laboratory accompanied the project sample containers during the entire sampling and shipping process.

4.5 Evaluation of Laboratory Data

Levels

The analytical results for the soil samples are summarized in Table 3 and are compared to ADEC Method 2 Cleanup Criteria listed in 1SAAC 75.341 - Table B2 cleanup criteria (300 milligrams per kilogram (mg/Kg) fot GRO, 250 mg/Kg for DRO, 10,000 mg/Kg for RRO), and 18AAC75.341 - Table B1 [0.02 mg/Kg for benzene, 5.4 mg/Kg for toluene, 5.5 mg/Kg for ethylbenzene, 78 mg/Kg for total xylenes, 0.03 mg/Kg for PCE, and 0.027 mg/Kg for trichloroethylene (TCE)]. The complete laboratory results are included in Appendix D. It should be noted that the laboratory report lists Sample TP-1 S6 as TP-1 SG.

The soil samples collected from the test pits exhibited non-detectable concentrations of GRO, BTEX, DRO, and RRO, except for a GRO concentration measured in Sample TP-2 S7, which was 1.67 mg/Kg. This value is considerably less than the corresponding ADEC cleanup criterion of 300 mg/Kg. The samples from TP-1 through TP-3, collected at depths of 12, 16, and 16 feet bg respectively, were analyzed for VOCs, and exhibited PCE concentrations of 4.09, 4.20, and 1.73, respectively. These concentrations all exceed the ADEC cleanup criterion of 0.03 mg/Kg. In addition, the sample from TP-3 exhibited a TCE concentration of 0.0250 mg/Kg, which is below the ADEC cleanup criterion of 0.027 mg/Kg. No other VOC was detected above detection concentration.

Although the samples from TP-4 through TP-6 were not analyzed for VOCs, the laboratory was requested to examine the chromatograms for the GRO analyses to determine if a signature for PCE was present. Subsequent review of the chromatograms indicated that there was evidence of PCE in samples from each of these test pits.

Lots 8A, 10, 11, and 12, Block 26A; Phase II ESA

The samples collected from beneath the removed hydraulic cylinders, Samples SLC-2, MLC-3, and ELC-6 at depths of approximately six feet bg, exhibited non-detectable concentrations of GRO and BTEX. These samples exhibited DRO concentrations of 398, 33.5, and 230 mg/Kg, respectively. The DRO concentration in the SLC-2 sample exceeded the ADEC cleanup criterion of 250 mg/Kg. These samples exhibited RRO concentrations of 3,230; 264; and 1,170 mg/Kg, which are all below the ADEC cleanup criterion of 10,000 mg/Kg.

The samples collected beneath the hydraulic oil USTs, Samples SLT-1 and CP-7 at depths of four and sbx feet bg respectively, exhibited non-detectable concentrations of GRO and BTEX. These samples exhibited DRO concentrations of 509 and 329 mg/Kg, respectively, which both exceed the ADEC cleanup criterion of 250 mg/Kg. These samples exhibited RRO concentrations of 3,670 and 1,820 mg/Kg, respectively, which are both below the ADEC cleanup criterion of 10,000 mg/Kg.

The samples collected beneath the heating oil USTs, Samples T1E-4 and T2B-5 at depths of six and eight feet bg, respectively, exhibited non-detectable concentrations of GRO and BTEX. These samples exhibited DRO concentrations of 98.3 and 230 mg/Kg and RRO concentrations of 1,250 and 48.8 mg/Kg, respectively, which are below the respective ADEC cleanup criterion of 250 and 10,000 mg/Kg.

The samples collected from the stockpiled soils, SP-8 and SP-9, exhibited non-detectable concentrations of GRO/BTEX. These samples exhibited DRO concentrations of 208 and 408 mg/Kg, respectively. The DRO concentration of SP-9 (408 mg/Kg) exceeds the ADEC cleanup criterion of 250 mg/Kg. These samples exhibited RRO concentrations of 895 and 1,010 mg/Kg, respectively, which are both below the ADEC cleanup criterion of 10,000 mg/Kg.

The trip blank that was analyzed for GRO, BTEX, and VOCs exhibited non-detectable concentrations of all analytes, indicating that cross-contamination did not occur during sample handling.

5.0 CONCLUSIONS AND RECOMMENDATIONS

A brief review of historical information available for the subject property indicates that it was formerly occupied by the NC Tire Center and a cleaners (C and K Sanitary Cleaners) that may have been a drycleaners. The property is currently used as a parking lot, and has a generally level, unpaved surface. Sbx test pits were excavated at the property and subsurface soils were identified to contain PCE concentrations exceeding the ADEC cleanup criterion. Two heating oil USTs were removed

from the property and die soils remaining beneath the heating oil USTs exhibited analyte concentrations that were below ADEC cleanap criteria.

Five hydraulic lifts and two associated small hydraulic oil USTs were removed from the property, and soils remaining beneath the excavations exhibited DRO concentrations exceeding the ADEC cleanup criterion. The volume of soils with DRO concentrations exceeding the ADEC cleanup criterion appears to be relatively small, and would be difficult to precisely locate after placement of clean fill. It is recommended that the remaining soils be further evaluated in conjunction with additional assessment of PCE contamination as described below.

It is recommended that a work plan be developed to address the PCE contamination identified in the test pits. The work plan will likely include advancement of soil borings and possibly iastallation of monitoring wells and sampling of the existing monitoring well on site. It is also recommended that the stockpiled soils be transported to Alaska Soil Recycling in Anchorage for thermal treatment. Finally, it is recommended that a copy of this report be submitted to the ADEC for their review.

6.0 EXCLUSIONS AND CONSIDERATIONS

This report presents facts, observations, and inferences based on conditions observed during the period of our project activities, and only those conditions that were evaluated as part of our scope of work. Our conclusions and recommendations are based on our observations and the results of our research, and as such, rely on the accuracy of the reports and other correspondences that were reviewed. In addition, changes to site conditions may have occurred since we completed our initial project activities. These changes may be from the actions of man or nature. Changes in regulations may also impact the interpretation of site conditions. BGES will not disclose our findings to any parties other than our client as listed above, except as directed by our client, or as required by law.

Prepared by:

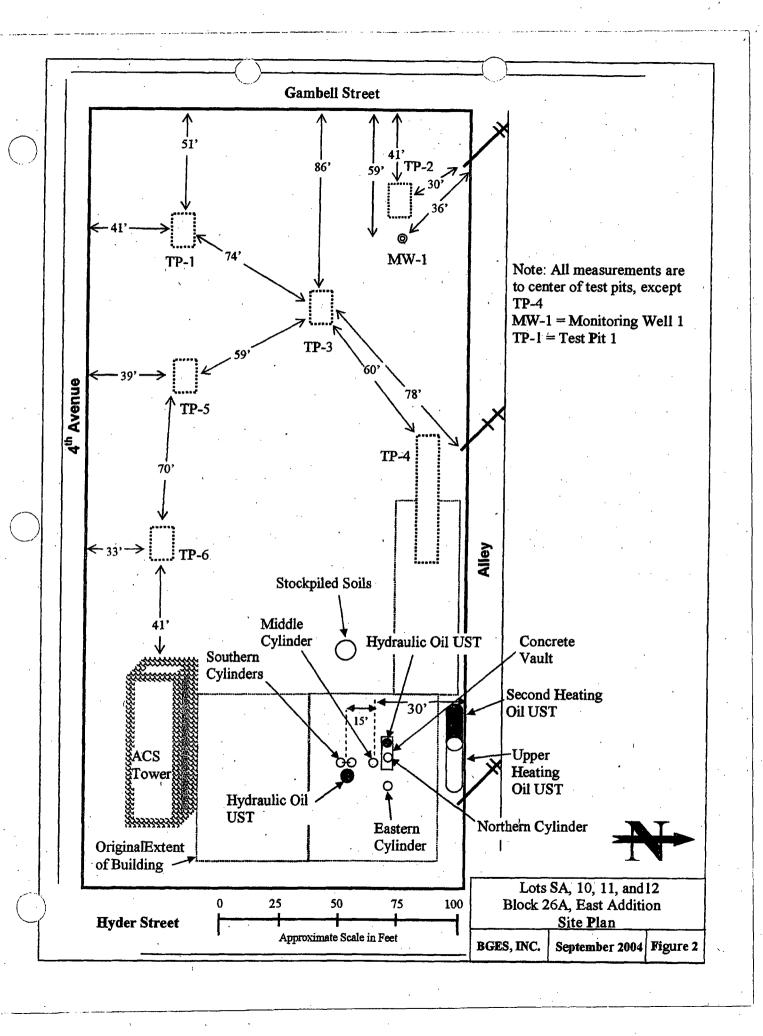
Robert R. Braustem Robert N. Braunstein, C.P.G.

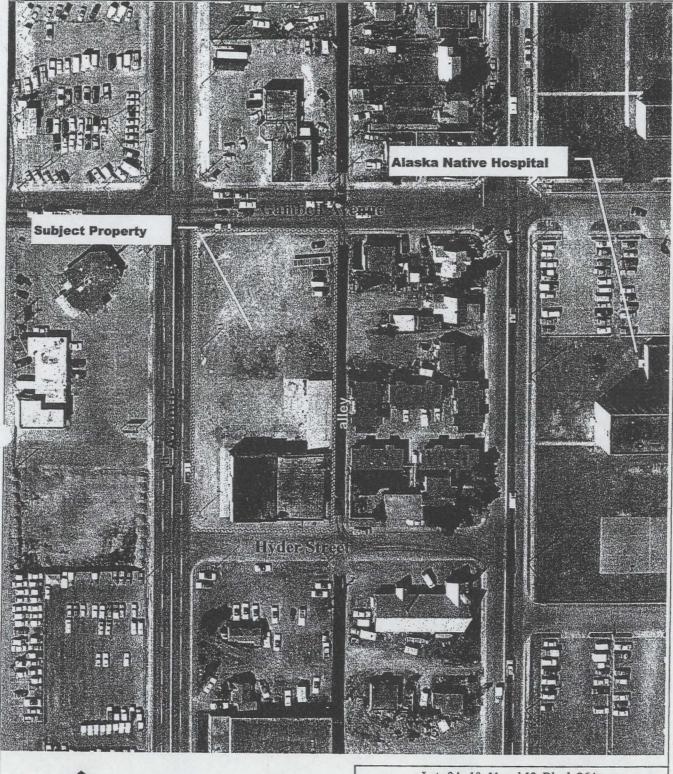
Principal Geologist

Reviewed by:

Keith O. Guyer, R.G

Principal Geologist







Source: AeroMap U.S.

Scale: 1inch =100 feet

Lots 8A, 10, 11 and 12, Block 26A East Addition, Anchorage, Alaska June 2, 1977 Aerial Photograph

BGES, INC.

September 2004

Figure 3

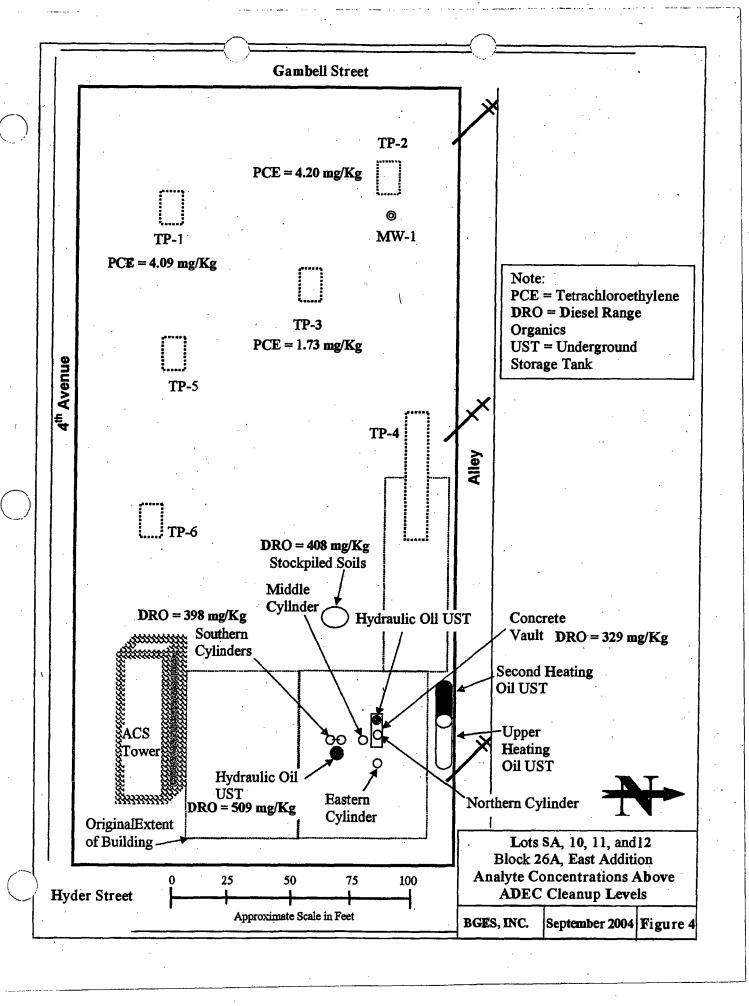


TABLE 1

Lots 8A, 10, 11 and 12, Block 28A, East Addition Polk City Directories Listings

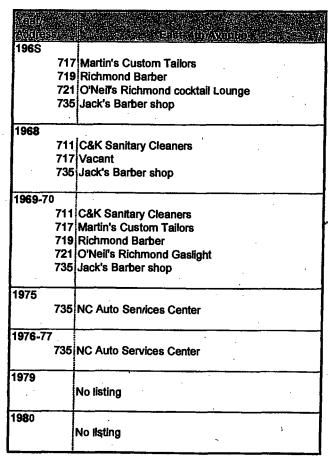


TABLE 2
Lots 8A, 10, 11, and 12; Block 26A
East Addition
Test Pit Logs

	Shinke	Simplestoppi	nendak solokan	ied Valtenbingt	
1	NO		inital straining.		
TP-1	N/A	0-0.3	N/A	N/A	Asphalt
1	N/A	0.3-2.0	0	N/A	Very fine grained sand and gravel; orange brown; few cement bricks
1	S-1	2.5	. 0	0.0	Very fine grained sand and gravel; brown to black
1	S-2	4.7	0.7	0.5	Coarse sand and gravel; brown to black
1	S-3	6	2.2	0.0	Coarse sand and gravel; brown to black
	S-4	9	0	0.7	Coarse sand and gravel; brown to black
Ι.	<u>S-5</u>	10	1.9	1.1	Coarse sand and gravel; brown to black
Lab	S-6	12	13	1.1	Coarse sand and gravel; brown to black
L	S-7	16	0.6	0.2	Coarse sand and gravel; brown to black
					Coarse sand, well sorted, few pieces of gravel; brown to black; piece of
TP-2	S-1	2.0	2.2	0.5	wood
ı	S-2	4.0	9	1.3	Coarse sand and gravel; brown to black
1	S-3	6	10	3.1	Coarse sand and gravel; brown to black; wood crib at 3 to 8 feet
I	S-4	8	5.7	4.0	Coarse sand and gravel; brown to black
1	S-5	10	10.5	1.2	Coarse sand and gravel; brown to black
1	S-6	12	7.3	15.5	Coarse sand; some gravel; brown to black
Lab	S-7	16	54	9.0	Coarse sand and gravel; brown to black
TP-3	S-1	2.0	0.2	0.7	Very fine grained sand, very silty, and gravel; reddish brown
1		4.0	0.2	00	Coarse sand and gravel; brown to black (some trash at 3 feet - cans,
	S-2	4.0	0.2	0.2	pottery)
1	S-3	· · 6	0.3	1.4	Coarse sand and gravel; brown to black
	S-4	8	6.3	74.0	Coarse sand and gravel; brown to black
Н	S-5	10 12	3.3 6.7	23.0 26.2	Coarse sand and gravel; brown to black
1	S-6	12 16		26.2 182	Coarse sand and gravel; brown to black
Labi TP-4	S-7 S-1	2.0	27.6		Coarse sand and gravel; brown to black
117-4			0	0.2	Coarse sand and gravel; red-brown
1.45	S-2	4.0	0	1.1 23.4	Coarse sand and gravel; brown to black
Lab	S-3 S-4	6 8	0	23. 4 7.6	Coarse sand and gravel; brown to black
ì	S-4 S-5	10	. 0	2.7 .	Coarse sand and gravel; brown to black
1	S-6	12	0 0	3.8	Coarse sand and gravel; brown to black
ł		13	0	1.6	Coarse sand and gravel; brown to black
TP-5	S-7	2.0	0	1.7	Coarse sand and gravel; brown to black
1 stb	S-1 S-2	4.0	0	20.6	Silt; some sand and gravel; compact; brown
I sin [0	0.0	Coarse sand and gravel; brown to black
1	S-3 S-4	6 8	0	0.0	Coarse sand and gravel; brown to black; wood crib Coarse sand and gravel; brown to black
			0		· · · · · · · · · · · · · · · · · · ·
1	S-5 S-6	10 12	0	0.1 0.0	Coarse sand and gravel; brown to black Coarse sand and gravel; brown to black
1.	S-6 S-7	12 14	0	0.0	Coarse sand and gravel; brown to black Coarse sand and gravel; brown to black
TP-6	S-1	2.0	0	0.0	Coarse sand and gravel; brown to black Coarse sand and gravel; red-brown
Lab	S-2	4.0	0	93.7	Coarse sand; some gravel; red-brown to dark brown
	S-3	6	0	25.6	Coarse sand and gravel; brown
	S-4	8	0	10.9	Coarse sand and gravel; brown to black
1	S-5	11	Ō	8.9	Coarse sand and gravel; brown to black
1	S-6	13	0	2.2	Coarse sand; trace gravel; brown
1.	S-7	16	. 0	4.1	Coarse sand; some gravel; brown
Name To			hotoionization Data		Per Million: N/A = Not Applicable

bg = Feet Below Grade; PID = Photoionization Detector; ppm = Parts Per Million; N/A = Not Applicable

Lab = sample submitted to laboratory

Note PID used for TP-1 was Thermo Environmental Instruments OS II; PID used for remaining test pits was Mini Rae

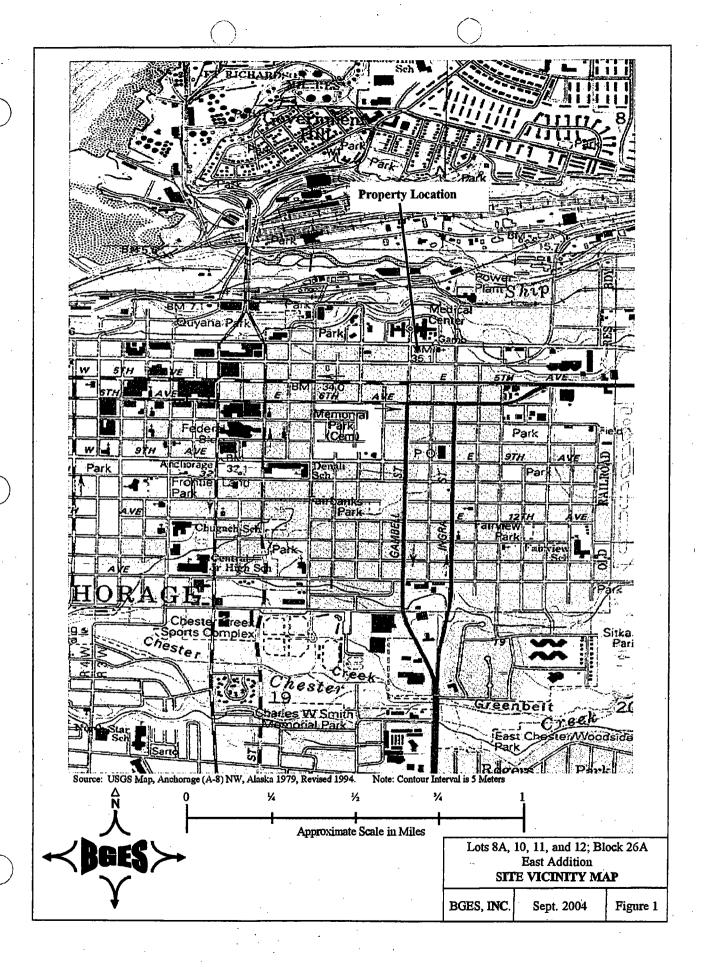


TABLE 3 Lots 8A, 10, 11, and 12; Block 26A Test Pit Soil Samples LABORATORY ANALYTICAL RESULTS

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Šol Stincle			F (2) (2) (3)	i i i i i i i i i i i i i i i i i i i		Note (Selection)
(16)	Minerale)	State of the state	(6) (1) (6) (6) (6) (6) (6) (6)		(A)REIQUIERI V LEIRIOXE	
TP-1 S6	12	GRO	<2.13	2.13	AK101	300 ¹
		Benzene	<0.0107	0.0107	8021B	0.02^{2}
ĺ		Toluene	<0.0427	0.0427	8021B	5.4 ²
		Ethylbenzene	<0.0427	0.0427	8021B	5.5 ²
1 .		Tot. Xylenes	<0.0427	0.0427	8021B	78 ²
1		DRO	<20.4	20.4	AK102	250 ¹
}		RRO	<20.4	20.4	AK103	10,000 ¹
ł		Tetrachloroethene	4.09	0.213	SW8260B	0.03 ¹
		All Other VOCs	ND	Varies	SW8260B	Varies
TP-2 S7	16 -	GRO	1.67	1.45	AK101	300 ¹
· .		Benzene	<0.00726	0.00726	8021B	0.02^{2}
-		Toluene	<0.0290	0.0290	. 8021B	5.4 ²
1		Ethylbenzene	<0.0290	0.0290	8021B	5.5 ²
	•	Tot. Xylenes	<0.0290	0.0290	8021B	78² .
		DRO	<18.6	18.6	AK102	250 ¹
		RRO _	<18.6	18.6	AK103	10,000 ¹
		Tebachloroethene	4.20	0.145	SW8260B	0.03 ¹
	····	All Other VOCs	ND	Varies	SW8260B	Varies
TP-3 S7	-16	GRO	<1.42	1.42	AK101	300 ¹
·		Benzdne	<0.00710	0.00710	8021B	0.02 ²
	•	Toluene	<0.0284	0.0284	8021B	5.4 ²
		Ethylbenzene	<0.0284	0.0284	8021B	5.5 ²
		Tot. Xylenes	<0.0284	0.0284	8021B	78 ²
		DRO	<19.7	19.7	AK102	250 ¹
i .	-	RRO	<19.7	19.7	AK103	10,000 ¹
	•	Trichloroethene	0.0250	0.0142	SW8260B	0.027 ¹
·		Tetrachloroethene	1.73	0.142	SW8260B	0.03 ¹
		All Other VOCs	ND ND	Varies	SW8260B	Varies
TP-4 S3	6	GRO	<1.44	1.44	AK101	300 ¹
	•	Benzene	<0.00720	0.00720	8021B	0.02^{2}
		Toluene	<0.0288	0.0288	8021B	5.4 ²
	•	Ethylbenzene	<0.0288	0.0288	8021B	5.5 ²
		Tot. Xylenes	<0.0288	0.0288	8021B	78 ²
·		DRO	<20.0	20.0	AK102	250 ¹
		RRO	<20.0	20.0	AK103	10,000 ¹

¹ Soil criteria from Alaska Department of Environmental Conservation (ADEC) 18AAC 75.341, Table B2

Border = Concentration exceeds corresponding ADEC cleanup criterion

bg = below grade

ND = Non Detectable

VOCs = Volatile Organic Compounds

GRO = Gasoline Range Organics

mg/Kg = Milligrams per Kilogram

PQL = Practical Quantitation Limit

DRO = Diesel Range Organics

RRO = Residual Range Organics

² Soil criteria from ADEC, 18AAC 75.341, Table B1

TABLE 3 Lots 8A, 10, 11, and 12; Block 26A Test Pit Soil Samples LABORATORY ANALYTICAL RESULTS

(Can See Line	ູ Social			$\{i_i\}_{i \in I}$		/ADI= Poli
No.	(leelos)) Pagamalaji	(Farelise)		Anthriograph	Classifications (275) (Catal Region
TP-5 S2	4	GRO	<1.72	1.72	AK101	300 ¹
ļ		Benzene	<0.00859	0.00859	8021B	0.02 ²
		Toluene	<0.0344	0.0344	8021B	5.4 ²
		Ethylbenzene	<0.0344	0.0344	8021B	5.5 ²
		Tot. Xylenes	<0.0344	0.0344	8021B	78 ²
		DRO	<19.8	19.8	AK102	250 ¹
		RRO	<19.8	19.8	AK103	10,000 ¹
TP-6 S2	4	GRO	<1.40	1.40	AK101	300 ¹
		Benzene	<0.00702	0.00702	8021B	0.02 ²
		Toluene	<0.0281	0.0281	8021B	5.4 ²
		Ethylbenzene	<0.0281	0.0281	8021B	5.5 ²
	•	Tot. Xylenes	<0.0281	0.0281	8021B	78 ²
		DRO	<20.5	20.5	AK102	250 ¹
		RRO	<20.5	20.5	AK103	10,000 ¹

¹ Soli criteria from Alaska Department of Environmental Conservation (ADEC) 18AAC 75.341, Table B2

Border = Concentration exceeds corresponding ADEC cleanup criterion

bg = below grade

ND = Non Detectable

VOCs = Volatile Organic Compounds

GRO = Gasoline Range Organics

mg/Kg = Milligrams per Kilogram

PQL = Practical Quantitation Limit

DRO = Diesel Range Organics

RRO = Residual Range Organics

² Soil criteria from ADEC, 18AAC 75.341, Table B1

TABLE S Lots SA, 10, 11, and 12; Block 26A draulic Lifts and Heating Oil USTs Soli Samples LABORATORY ANALYTICAL RESULTS

Sell Statistal	Piejojn Piejojn		Rentie Materixes	0	Arellain illulainu	Page Soll
SLT-1	4	GRO	<2.89	2.89	AK101	300 ¹
1	•	Benzene	<0.0144	0.0144	8021B	0.02 ²
ł		Toluene	< 0.0578	0.0578	8021B	5.4 ²
1		Ethylbenzene	< 0.0578	0.0578	. 8021B	5.5 ²
Ī		Tot. Xylenes	<0.0578	0.0578	8021B	78 ²
ł		DRO	509	201	AK102/103	250 ¹
		RRO	3670	201.0	AK102/103	10,000 ¹
SLC-2	6	GRO	<2.5	2.50	AK101	300 ¹
ł		Benzene	< 0.0125	0.0125	8021B	0.02 ²
		Toluene	< 0.0501	0.0501	8021B	5.4 ²
		Ethylbenzene	<0.0501	0.0501	80218	5.5 ²
i		Tot. Xylenes	<0.0501	0.0501	8021B	78 ²
		DRO	398	203	AK102/103	250 ¹
<u> </u>	-	RRO	3230	203	AK102/103	10,000 ¹
MLC-3	6	GRO	<2.05	2.05	AK101	300 ¹
-	•	Benzene	< 0.0103	0.0103	8021B	0.02 ²
1		Toluene	<0.0410	0.041	8021B	5.4 ²
* .		Ethylbenzene	<0.0410	0.041	8021B	5.5 ²
		Tot. Xylenes	<0.0410	0.041	8021B	78 ²
		DRO	33.5	19.6	AK102/103	250 ¹
		RRO	264	19.6	AK102/103	10,000 ^{1;}
T1E-4	6	GRO	<2.17	2.17	AK101	300 ¹
		Benzene	<0.0109	0.0109	8021B	0.02 ²
		Toluene	<0.0434	0.0434	8021B	5.4 ²
1		Ethylbenzene	< 0.0434	0.0434	8021B	5.5 ²
		Tot Xylenes	<0.0434	0.0434	6021B	78 ² .
		DRO	98.3	80.3	AK102/103	250 ¹
		RRO	1250	80.3	AK102/103	10,000 ¹
T2B-5	6	GRO	<2.44	2.44	AK101	300 ¹
		Benzene	<0.0122	0.0122	8021B	0.022
1		Toluene	<0.0488	0.0488	8021B	5.4 ²
		Ethylbenzene	<0.0488	0.0488	8021B	5.5 ²
		Tot. Xylenes	<0.0488	0.0488	8021B	78 ²
		DRO	60.8	20.4	AK102/103	250 ¹
		RRO	48.8	20.4	AK102/103	10,000 ¹
ELC-6	6	GRO	<1.70	1.70	AK101	3001
		Benzene	<0.00849	0.00849	6021B	0.02 ²
		Toluene	<0.0340	0.034	8021B	5.4 ²
		Ethylbenzene	<0.0340	0.034	8021B	5.5 ²
		Tot Xylenes	<0.0340	0.034	8021B	78 ²
	•	DRO	230	78.6	AK102/103	250 ¹
		_RRO	1170	78.6	AK102/103	. 10,000 ¹
CP-7	6	GRO	<2.37	2.37	AK101	300 ¹
		Benzene	<0.0119	0.0119	8021B	0.02 ²
		Toluene	<0.0474	0.0474	8021B	5.4 ²
		Ethylbenzene	<0.0474	0.0474	8021B	5.5 ²
		Tot. Xylenes	<0.0474	0.0474	8021B	78 ²
		DRO L	329	81.3	AK102/103	250 ¹
1		RRO Department of Env	1820	81.3	AK102/103	10,000'

¹ Soil criteria from Alaska Department of Environmental Conservation (ADEC) 18AAC 75.341, Table B2

² Soil criteria from ADEC, 18AAC 75.341, Table B1

Border = Concentration exceeds corresponding ADEC cleanup criterion

bg = below grade; GRO = Gasoline Range Organics; mg/Kg = Milligrams per Kilogram
PQL = Practical Quantitation Limit. DRO = Diesel Range Organics; RRO = Residual Range Organics

TABLE 3 Lots 8A, 10, 11, and 12; Block 26A Stockpile Soli Samples LABORATORY ANALYTICAL RESULTS

51312	Seladole Decid		(Ragallia) (k	a de la companya de		40 gg (sn),
k10;	((23)(10)	Palamera.	(GrafeVaxed)		Antiving	(metke) (metke)
SP-8	1.5	GRO	<1.90	1.90	AK101	300 ¹
· ·		Benzene	<0.00952	0.00952	8021B	0.02 ²
		Toluene	<0.0381	0.0381	8021B	5.4 ²
		Ethylbenzene	<0.0381	0.0381	8021B	5.5 ²
		Tot. Xylenes	<0.0381	0.0381	8021B	78 ²
		DRO	208	81.2	AK102	250 ¹
·		RRO	895	61.2	AK103	10,000 ¹
SP-9	1.5	GRO	<1.61	1.81	AK101	300 ¹
		Benzene	<0.00803	0.00803	8021B	0.02 ²
•		Toluene	<0.0321	0.0321	8021B	5.4 ²
·		Ethylbenzene	<0.0321	0.0321	8021B	5.5 ²
		Tot. Xylenes	<0.0321	0.0321	8021B	78 ²
		DRO	408	78.2	AK102	250 ¹
		RRO	1010	78.2	AK103	10,000 ¹

¹ Soil criteria from Alaska Department of Environmental Conservation (ADEC) 18AAC 75.341, Table B2 ² Soil criteria from ADEC, 18AAC 75.341, Table B1

Border = Concentration exceeds corresponding ADEC cleanup criterion

bg = below grade GRO = Gasoline Range Organics

mg/Kg = Milligrams per Kilogram

PQL = Practical Quantitation Limit

DRO = Diesel Range Organics

RRO = Residual Range Organics

APPENDIX A
PHOTOGRAPHS

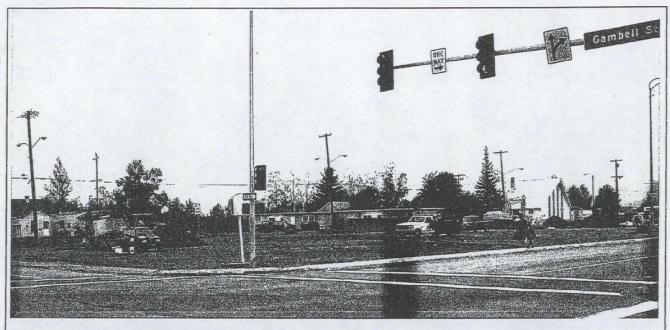


Photo 1. Project site (looking northeast). Excavating Test Pit TP-1 (left); removing hydraulic lifts (right).

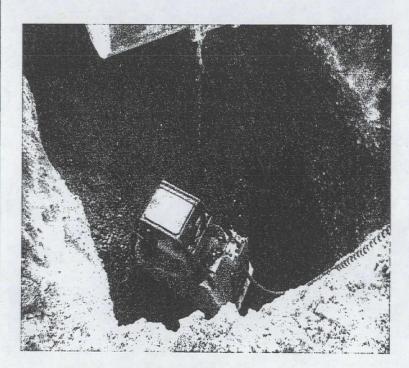


Photo 2. Compacting Test Pit TP-1

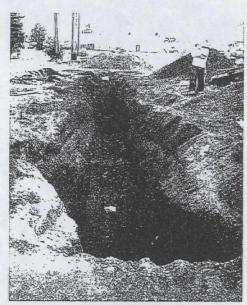


Photo 3. TP-4 (42 feet long); looking east

Lots 8A, 10, 11, and 12; Block 26A East Addition; Anchorage, Alaska Property Photographs

BGES, INC.

September 2004

Figure A-1

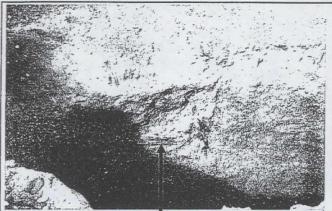


Photo 4. TP-3 - Note, wooden crib remains of septic system



Photo 5. Southern double lift cylinder



Photo 6. Hydraulic oil reservoir tank



Photo 7. Stained wall of concrete vault and reservoir tank

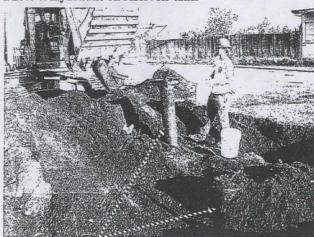


Photo 8. Hydraulic lift cylinders

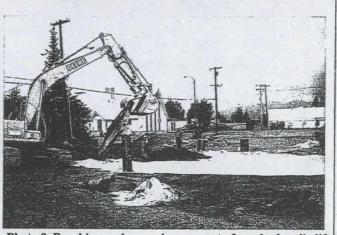


Photo 9. Breaking and removing concrete from hydraulic lift area

Lots 8A, 10, 11, and 12; Block 26A East Addition; Anchorage, Alaska Property Photographs

BGES, INC.

September 2004

Figure A-2



Photo 10. Heating oil UST in place

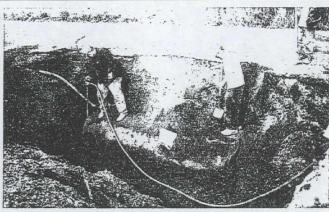


Photo 11. Second, lower heating oil UST

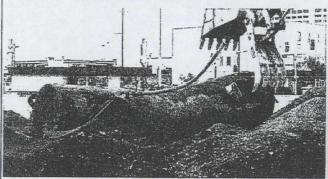


Photo 12. Two USTs removed from ground

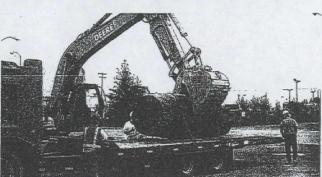


Photo 13. Loading UST for disposal

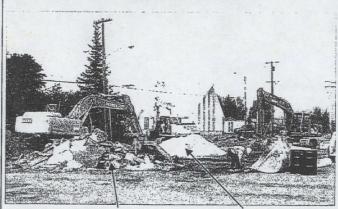


Photo 14. Stockpiled concrete and lined contaminated soil stockpile with backfilling excavation in the background



Photo 15. Removed cylinders, reservoir tank and metal debris

Lots 8A, 10, 11, and 12; Block 26A East Addition; Anchorage, Alaska Property Photographs

BGES, INC.

September 2004

Figure A-3

APPENDIX B ADEC SPILL NOTIFICATION FORM



ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION

					1	.	
ADEC SPILL #		ADEC FILE#		ADEC LC			
PERSON REPORTING	, ,	номе нимв			REPORTED HOW?		
Robert N. Brauns	tein	(907)	696-2437	1	Troope	rs phone	fax
DATE/ TIME OF SPILL	DATE/I	IME DISCOVE	RED	DATE/TIME RE	PORTED		
Unknown	9	16/04	·	9/17/04	UAI		
LOCATION/ADDRESS Lats 8A, 10,	11, and	LAT.		SUBSTANCE TY		PRODUCT	m Mai
12 East Addition	Í	LONG.	** _***	B) CR EHS HS NC		A) Picsel Range B) To. + vachloss	
QUANTITY SPILLED QDA	NTITY CONTAIN	NED	QUANTITY RECO			DISPOSED	
□ gallons		□ gallons	` `	☐ gallons	-	. □ ga	allons
Un Known pounds N	<u>/A</u>	□ pounds	210 cubic yard	pounds	· <u></u>	D pc	ounds
POTENTIAL RESPONSIBLE PARTY C-Plan	Holder? YES	NO 🗆	FACILITY TYPE				
Paul Maney/Alaskan	Real Esta	te, Inc.	Parking	6+ - unp	ave d		
SOURCE OF SPILL Hydraulic li	fts and	Dry Clea	ineus? Both	i were for	wer	□ >400 GT Vess	iel?
operations							
CAUSE OF SPILL (List Primary Cause first)						Accident	
UNKNOWN		•		٠.		☐ Human Factor ☐ Stiuctural/Med ☐ Other	chanical
CLEANUPACTIONS Removed app fluid contamination and approval to transpor- DISPOSAL METHODS AND LOCATION ASR-Thermal trea	•			site fend	ing A	'DEC	
RESOURCES AFFECTED/THREATENED (Water sources, wildlife, wells. etc.)		· · · · · · · · · · · · · · · · · · ·	AIR AND IA		F. AREA A	FFECTED SURF.	TYPE
COMMENTS BEES, Inc. will be assessing the extent		_	•				
		DEC US	SE ONLY	•			
SPILL NAME, IF ANY			MES OF DEC STAFF F	RESPONDING		MGR NOTIFIED	
DEC RESPONSE ☐ phone follow-up ☐ field visit ☐ took report	CASELOAI		/No LC LC assign	CLEANUP CLOS		ION Transferred to CS	or STP
STATUS OF CASE (circle) (OSED		CASE CLOSE	<u>-</u>		0.311
COMMENTS:							
	•						1
•			•				ľ
	÷ .						
							i
	٠.	•					Ì
REPORT PREPARED BY				DATE			
					•	•	ı



BGES, INC.

Providing Environmental and Geological Consulting Services

P.O. Box 110126 Aachorage, Alaska 99511-0126 Ph: (907) 644-2900 Fax: (907) 644-2901

September 17, 2004

Project Manager Alaska Department of Environmental Conservation 555 Cordova Street Anchorage, Alaska 99501

RE: RELEASE NOTIFICATION AND REQUEST TO TRANSPORT SOILS FOR OFF-SITE THERMAL TREATMENT, LOTS 8A, 10, 11, AND 12, EAST ADDITION SUBDIVISION, ANCHORAGE, ALASKA

Dear Project Manager:

BGES, Inc. (BGES) has been requested by our client, Paul Maney, owner of the above-referenced property, to notify you of releases of contamination on his property located at Lots 8A, 10, 11, and 12, Block 26A, Bast Addition, Anchorage, Alaska. The property is located along 4th Avenue, between Gambell Street and Hyder Street. The contamination was discovered during a recent site assessment performed by BGES. As part of the assessment, six test pits were excavated, and five hydraulic lifts and four underground storage tanks (USTs) were removed from the property. Two of the USTs were apparently heating oil USTs and two of the USTs held hydraulic fluid. A relatively small volume of contaminated soils (approximately 10 cubic yards) from the hydraulic lift excavations was stockpiled on a liner on site.

Soil samples obtained from the test pits and submitted for laboratory analysis indicated concentrations of Tetraohloroethylene (PCE), ranging from 1.73 to 4.20 milligrams per kilogram (mg/Kg), which exceed the ADEC soil cleanup criterion of 0.03 mg/Kg. In addition, soil samples from the hydraulic lift and hydraulic tank areas exhibited diesel range organics (DRO) concentrations that exceeded the ADEC cleanup criterion and ranged from 329 rug/Kg to 509 mg/Kg. Furthermore, two soil samples obtained from stockpiled soils (Samples SP-8 and SP-9) removed from the hydraulic lift areas exhibited respective DRO concentrations of 208 mg/Kg and 428, the latter of which exceeds the

BGES, INC.

Lots 8A, 10, 11, and 12, East Addii Release Notification September 16, 2004 Page 2 of 2

ADEC cleanup criterion. Samples SP-8 and SP-9 exhibited residual range organics concentrations of 895 and 1010 mg/Kg, respectively. The laboratory analytical results are attached.

We are hereby requesting ADEC approval to transport the stockpiled soils to Alaska Soil Recycling in Anchorage for thermal treatment and disposal. You may indicate your approval by signing the authorization block below. Because the stockpile is located in a high-profile area, we are requesting a timely response to this letter. We will be submitting a work plan for your approval prior to continuing our assessment of this property.

Sincerely,

BGES, INC.

Prepared by:

Robert M. Brownstein

Robert N. Braunstein Principal Geologist

Encl: Laboratory Analytical Results

ADEC AUTHORIZATION TO REMOVE SOILS FROM THE SITE:

have reviewed this correspondence and authorize the stockpiled soils at Lots 8A, 10, 11, and 12, Block
26A, East AdSition, in Anghotage, Alaska to be transported to Alaska Soil Recycling for Disposal.

Signature of Authorized ADEC Representative

Title/Affiliation

9/22/04

Additional Considerations, if any:

ADEC has no objection to the proposed transportation of contaminated soil to a thermal treatment facility conditional on the following: It is containerized and/covered daring transport; and the treatment facility is authorized to treat the contaminated material in accordance with applicable laws and regulations.

Pumuant to your written request — the material will be transported to Anchorage Soil Recycling for thermal treatment and disposal. ADEC recognizes this facility as an approved treatment facility and approves of the proposed treatment in accordance with the terms of their operating permit.

APPENDIX C MATERIAL DISPOSAL DOCUMENTATION

- 283428 INVOICE NO.				1040 O'Maii	ALATINGA ANCHORAGE SAND S GRAV DIMOND FASSICATORS ALASKA SOIL RECYCLING (907) 349-3333				RICATORS		
DATE 8 - 3		/		,			1 1/4	idel			
JOB OR OROER			1.1.6	179	SI LC	IB DIV. T		B1,0CK			
Quantity	CHARGI	Proqu	2 CAS	Н	2 C.O.D.		DELIVE		PICK-UP		
	ay	Livery	LV. YD.	(0,10	TRK						
		ZONE	ARR. JOB			170	ТО	TAL	300.00	6)	
	35	PLANT	LV. JOB		DRIVER	11	-3				
			· V//	unauranenny)		charge on Par	si Due Account	s — Annual Port	ontage Rate 12%		

nicipality of Anchorage (Solid Waste Services

DATE: 08/30/2004 LOG: ANCHORAGE REGIONAL LANDFILL

TIME OUT: 11:29

BILL TO: B & C EXCAVATING ACCT NBR: 10-521114.01 VEH ID: SNOWMAN

COMMODITY: LOOSE REFUSE

CONT:

COST PER TON:

\$45.00

GROSS WEIGHT:

42,860

AMOUNT:

\$172.35

TARE WEIGHT:

35,200

ADDTL CHARGES:

NET WEIGHT:

SURCHARGE:

\$172.35

TOTAL AMOUNT DUE: AMOUNT PAID:

ADDITIONAL CHARGES DESCRIPTION:

IF YOU SPEND MORE THAN 15 MINS. OFF-LOADING ON THE TRANSFER STATION TIPPING FLOOR, YOU WILL BE CHARGED AN ADDITIONAL \$40.00 HANDLING CHARGE

DRIVER'S SIGNATURE

INVOICE:

35348

EMERAL BOUNDARY

NON-DOT BILL OF LADING THIS IS NOT AN INVOICE

PT 01801

Emerald Alaska Inc. (907) 258-1568 1-877-375-5040 Tpll Free Facility Address: 2020 Viking Drive, Anchorage, AK 99501 EPA ID# Transporter WADO58364647 / Facility AKR000604184

JOB#____

EPA ID# Transporter WADO58364647 / Facility AKR00p604184 Account Name: BC FRCAMATING Account #: BCE 1000 Date: 9-2-04 Bite Address: 2357 Cinn A BAR 100P Billing Address: ____City: City: Mallocave State & Zip: _## 9950 7 _____ State & Zip: ___ Driven Meith ____ Otiner: ____ Other: Customer Phone Number: 344-4490 Customer Contact: Ros HAIRES RO. Number: ______ Next Service Date: _ Unit Price Description Amount Qty/Gal item Used Oil (not USDOT Regulated) 55 DM IJO Chior D Tect Test™ 2222 Pass Fail CHLOR OWS. Oily Sludge Used Oil Filters (no Gasket) - crushed OF100 Off Spec Fuel (Requires DOT BOL) MF Oily Water OW Antifreeze, New 60/40 R/C **AFN** Used Antifreeze (Recycling) **AFU** Partwasher Sen/ice MOD/COM . **PWS** Used Solvent (REQUIRES MANIFEST) US New Absorbent Pads AM Used Absorbent Pads **AMU Emerald Window Washer Fluid EMWWF** DRUMW Drum Disposal Service Fee SERV Tmck/Operator Time Industrial Rate Antifreeze AFUNO Extended Life Antifreeze 60/40 TOTAL

_ Stop Time. -

MET RECYC	AL	349-4833	•	DATE B	Sept.	ENSE NO.	
ADDRESS SHREDDER	ALE RECTCLING	7 - 3 - 0	11-				149018
MATERIAL IRON REMARKS 2	CAST /OO	gallon	Tanks			CHECK NO. DRIVER	() //_ ON [] OFF[]
GROSS LBS.	35480 lb				l hereby certify sell this propert	that I have the i	right to possess and
TARE LBS.	37940 Ib	_	,			.,.	
NET LBS.	1643	· .	PRICE	PER	TOTAL	1000	

SIGNED

LASKA METAL RECYCLING 349-4833		DATE <u>(3/3)</u>	LICENSE N	o		
ALASKA'S LEISEB IN METALS RECYCLING CUSTOMER NAME	Λ				149	104
ADDRESS				•	, , , ,	
SHREDDER #1 MATERIAL IRON CAST CAR	OTHER			CHECK NO.	NIL	
REMARKS 2,4	Hoists L	Tanks	(hyel)	DRIVER	0И 🗆	OFF:
					;	
GROSS LBS. 32580 lb		•	I hereby certify that I sell this property.	have the ri	lght to posse	ss and
TARE LBS. 29740 16	\ 1	£. 2				
NET LBS.	PRICE	/ <u>/</u>	TOTAL			:
	•	SIGNE	:D			

APPENDIX D LABORATORY ANALYTICAL RESULTS



Laboratory Analysis Report

200 W. Potter Drive Anchorage, AK 99518-1605 Tel: (907) 562-2343 Fax: (907) 561-5301

Web: http://www.sgsenvironmental.com

Keith Guyer BGES Inc. P.O. Box 110126 Anchorage, AK 99511

Work Order:

1045539

4th & Gambell 04-038-01

Client:

BGES Inc.

Report Date:

September 14, 2004

Enclosed are the analytical results associated with the above workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by SGS. A copy of our Quality Control Manual that outlines this program is available at your request. The laboratory ADEC ertification numbers are AK08-03 (DW), UST-005 (CS) and AK00971 (Micro).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS Quality Assurance Program Plan and the National Environmental Laboratory Accreditation Conference.

If you have any questions regarding this report or if we can be of any other assistance, please call your SGS Project Manager a (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

Practical Quantitation Limit (reporting limit).

U Indicates the analyte was analyzed for but not detected.

F Indicates an estimated value that falls below PQL, but is greater than the MDL.

The quantitation is an estimation.

В Indicates the analyte is found in a blank associated with the sample.

The analyte has exceeded allowable regulatory or control limits.

GT Greater Than

D The analyte concentration is the result of a dilution.

LT Less Than

Surrogate out of control limits.

Q QC parameter out of acceptance range.

M A matrix effect was present.

JL The analyte was positively identified, but the quantitation is a low estimation.

The analyte result is high outside of calibrated range.

Soil samples are reported on a dry weight basis unless otherwise specified

1045539001

Client Name

BGES Inc.

Project Name/#

4th & Gambell 04-038-01 SLT-1

Client Sample 1D Matrix

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time

Collected Date/Time

09/14/2004 16:14 08/28/2004 10:05

Received Date/Time

08/30/2004 8:14

Technical Director

Stephen C. Ede

Released By

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container 1D	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Departme	nt							•	
Gasoline Range Organics	2.89 U	2.89	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MMT
Benzene	0.0144 U	0.0144	mg/Kg	AK101 8021B	A			09/10/04	
Toluene	0.0578 U	0.0144	mg/Kg	AK101 8021B	A			09/10/04	
Ethylbenzene .	0.0578 U	0.0578	mg/Kg	AK101 8021B	. A			09/10/04	
P&M-Xylene	0.0578 U	0.0578	mg/Kg	AK101 8021B	A			09/10/04	
o-Xylene	0.0578 U	0.0578	mg/Kg	AK101 8021B	A	•		09/10/04	
		0.0370	96		•	·	00/20/04	92/10/04	IVIIVIL
Sogates							• • •	•	•
1,4-Difluorobenzene <snn></snn>	94	·	%	AK101.8021B	. A	72-105	ń8/28/Ω4	09/10/04	ммт
4-Bromofluorobenzene <surr></surr>	101	. *	%	AK101 8021B	•	72-103 50-150		09/10/04	
					••				
		•	. •	• • •		•	•		
Semivolatile Organic Fu	els Departmer	it ·	•						•
Diesel Range Organics	509	201	mg/Kg	AK102/103	В	•	08/31/04	.09/01/04	JĊ
Residual Range Organics	3670	201	mg/Kg	AK102/103	·B		08/31/04		JC
		201			_				•••
Surrogates			•						
5a Androstane <sun></sun>	93.8		· %	AK102/103	В	50-150	08/31/04	09/01/04	JC
n-Triacontane-d62 <sum></sum>	76		. %	AK102/103		50-150 50-150	08/31/04	•	JC
	,,			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1)0-130	00/31/04	02/01/04	
	•						• •	•	
Solids			•		•			•	
Total Solids	93.8		%	SM20 2540G	В			09/07/04	AHP
+ ×			•	• • • •					



1045539002

Client Name

BGES Inc.

Project Name/# Client Sample 1D 4th & Gambell 04-038-01 SLC-2

Matrix Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time

Collected Date/Time

09/14/2004 16:14 08/28/2004 10:48

Received Date/Time

08/30/2004 8:14

Technical Director

Stephen C. Ede

Released By

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Departme	nt								· ·
Gasoline Range Organics	2.50 U	2.50	mg/Kg	AK101 8021B	A .		08/28/04	09/10/04	MML
Benzene	0.0125 U	0.0125	mg/Kg	AK101 8021B	. A			09/10/04	
Toluene	0.0501 U	0.0501	mg/Kg	AK101 8021B	. A			09/10/04	
Ethylbenzene	0.0501 U	0.0501	mg/Kg	AK101 8021B	A		,	09/10/04	
P & M -Xylene	0.0501 U	0.0501	mg/Kg	AK101 8021B	A	'	08/28/04	09/10/04	MML
o-Xylene	0.0501 U	0.0501	mg/Kg	AK101 8021B	A	. • •	08/28/04	09/10/04	MML
on rogates									
1,4-Difluorobenzene <surr></surr>	96.5	·	. %	AK101 8021B	Α	72-105	08/28/04	09/10/04	MML
4-Bromofluorobenzene <surr></surr>	99.2		%	AK101 8021B		50-150	08/28/04	09/10/04	MML
	4.			•					•
Semivolatile Organic Fu	els Departme	nt				•			
Diesel Range Organics	398	, 203	rag/Kg	AK102/103	В	. •	08/31/04	09/01/04	JC
Residual Range Organics	3230	203	mg/Kg	AK102/103	B		08/31/04	09/01/04	JC
Surroga tes						:			•
n-Triacontane-d62 <surr></surr>	135		·. %	AK102/103	В	50-150	08/31/04	09/01/04	JC
5a Androstane <surr></surr>	76.5		- %	AK102/103	-	50-150	08/31/04		JC
Solids		٠.			•	• .		•	
Total Solids	96,2		%	SM20 2540G	В			09/07/04	AHP
				•					

1045539003

Client Name

BGES Inc.

Project Name/#

4th & Gambell 04-038-01 MLC-3

Client Sample ID Matrix

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time

09/14/2004 16:14 08/28/2004 11:44 08/30/2004 8:14

Collected Date/Time

Received Date/Time

Technical Director

Stephen C. Ede

Released By

Sample Remarks:

'arameter	Results	٠.	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Department				•						• •
oracite Freis Debarcmen									,	
Gasoline Range Organics	2.05 U		2.05	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MML
Benzene	0.0103 IJ		0.0103	mg/Kg	AK101 8021B	Α	•	08/28/04	09/10/04	MML
Tohiene	0.0410 U		0.0410	mg/Kg	AK101 8021B	Α	•	08/28/04	09/10/04	MML
Ethylbenzene	0.0410 U	• •	0.0410	mg/Kg	AK101 8021B	` A		08/28/04	09/10/04	MML
P & M -Xylene	0.0410 U		0.0410	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
o-Xylene	0.0410 U		0.0410	mg/Kg	AK101 8021B	Α	•	08/28/04	09/10/04	MML
		. •								
gates						٠.				•
1,4-Difluorobenzene <sun></sun>	93.5	•		%	AK101 8021B	Α	72-105	08/28/04	09/10/04	MML.
4-Bromofluorobenzene <surr></surr>	101		·	%	AK101 8021B	Α	50-150	08/28/04	09/10/04	MML
	•	:		ŕ		• • •				
emivolatile Organic Fuel	s Departm	eint							• •	٠.
Diesel Range Organics	33.5		19.6	mg/Kg	AK102/103	В		08/31/04	09/01/04	JC
Residual Range Organics	264	• •	19.6	mg/Kg	AK102/103	В		08/31/04	09/01/04	JC.
urroga tes								•		· . ·
n-Triacontane-d62 <sun></sun>	105			%	AK102/103	В	50-150	08/31/04	09/01/04	JC
5a Androstane <sun></sun>	80.4	. •	·	%	AK102/103		50-150 50-150	08/31/04		JC
					**				. :	
olids	· .	•	<i>:</i>				1			
·			•	•		•				

SGS

SGS Ref.#

Matrix

1045539004

Client Name

BGES Inc.

Project Name/# Client Sample 1D 4th & Gambell 04-038-01 T1E-4

ole ID TIE-

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time

09/14/2004 16:14

Collected Date/Time

08/28/2004 13:00

Received Date/Time

08/30/2004 8:14

Technical Director

Stephen C. Ede

Released By

7

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Departme	nt	· · · ·							
Gasoline Range Organics	2.17 U	2.17	mg/Kg	AK101 8021B	A		. 08/28/04	09/10/04	MML
Benzene	0.0109 Ü	0.0109	rag/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
Toluene	0.0434 U	0.0434	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
Ethylbenzene	0.0434 U	0.0434	mg/Kg	AK101 8021B	. A	:		09/10/04	
P & M -Xylene	0.0434 U	0.0434	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MML
o-Xylene	0.0434 U	0.0434	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MML
	• •					: :			
Sugates					•			ż	
1,4-Difluorobenzene <sum></sum>	96.9		%	AK101 8021B	Α	72-105	08/28/04	09/10/04	MML
4-Bromofluorobenzene <surr></surr>	95.5	•	%	AK101 8021B	Α	50-150	08/28/04	09/10/04	MML
	٠.		•			,			
						•			•
Semivolatile Organic Fu	els Departmen	it		•				•	•
Diesel Range Organics	98.3	80.3	mg/Kg	AK102/i03	В		08/31/04	09/01/04	JC
Residual Range Organics	1250	80.3	mg/Kg	AK102/103	В		08/31/04		JC
				•	•	•		,	
Surrogates			•	• .	•				
n-Triacontane-d62 <sun></sun>	133		%	AK102/103	В	50-150	08/31/04	09/01/04	JC.
Sa Androstane <sum></sum>	64.1		%	AK102/103		50-150 50-150	08/31/04		JC
	- ··-		,		2 ,	JU-130			
			. ,			•	•		
Solids	•	· .	•			٠ .		٠.	
Total Solids	95.2 ·		%	S) (20 25 400	ъ			00/07/04	ATT
Total Bollus	73.4	•	. 70 ·	SM20 2540O	В	•		09/07/04	AHP

Client Name

Project Nanie/#

Client Sample ID Matrix ..

1045539005

BGES Inc.

4th & Gambell 04-038-01 T2B-5

Soil/Solid

Printed Date/Time

Collected Date/Time

09/14/2004 16:14 08/28/2004 13:44 08/30/2004 8:14

Received Date/Time

Technical Director

Stephen C. Ede

Released By

Sample Remarks;

DRO - The pattern is consistent with a weathered middle distillate.

RRO - Unknown hydrocarbon with several peaks is present.

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	lnit
	•	•		•		• :	•	• •	
Volatile Fuels Departme	nt							· ·	• .
Gasoline Range Organics	2.44 U	2.44	mg/Kg	AK101 8021B	A .		08/28/04	09/10/04	MML
Benzene	0.0122 U	0.0122	mg/Kg	AK101 8021B	· A		08/28/04	09/10/04	MML
Toluene	0.0488 U	0.0488	mg/Kg	AK101 8021B	Ą	-		09/10/04	
Ediylbenzene	0.0488 U	0.0488	mg/Kg	AK101 8021B	Α	•		09/10/04	•
P & M -Xylene	.0.0488 U	0.0488	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
ylene	0.0488 U	0.0488	mg/Kg	AK101 8021B	Α	٠.	08/28/04	09/10/04	MML
		•		• •				,	
Surrogates		-		•		•			
1,4-Difluorobenzene <surr></surr>	94.9		%	AK101 8021B	A 7	2-105	08/28/04	09/10/04	MML
4-Bromofluorobenzene <sun></sun>	95.3		% .	AK101 8021B	A 5	0-150	08/28/04	09/10/04	MML
		•		• •	-			,	
				• •					
Semivolatile Organic Fu	els Departanen	t	•	• • • • • • • • • • • • • • • • • • • •					
Diesel Range Organics	60.8	20.4	mg/Kg	AK102/103	В		08/31/04	09/01/04	JC
Residual Range Organics	48.8	20.4	mg/Kg	AK102/103	В	•		09/01/04	JC
						_ · .		03/02/01	•
Surrogates		•							
n-Triacontane-d62 <sun></sun>	143		. %	AK102/103	В 5	0-150	08/31/04	00/01/04	JC
5a Androstane <sun></sun>	93.3		%	AK102/103	•	0-150 0-150	08/31/04		JC
· ·	75.5		,,	7 METO2/105	, כ	0-150		03/01/04	•
	•	٠							
Solids	•								
Total Solids	96.5		%	SM20 2540G	В			09/07/04	ATTP
			,•					ייי ווטוכט	

Client Name

Project Name/# Client Sample 1D

Matrix

1045539006

BGES Inc.

4th & Gambell 04-038-01 ELC-6

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time

Collected Date/Time

09/14/2004 16:14 08/28/2004 14:42

Received Date/Time

08/30/2004 8:14

Technical Director

Stephen C. Ede

Released By.

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Voletile Parle Description						٠.			
Volatile Fuels Department									
Gasoline Range Organics	1.70 U	1.70	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MML
Benzene	0.00849 U	0.00849	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
Toluene	0.0340 U	0.0340	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
Ediylbenzene	0.0340 U	0.0340	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
P & M -Xylene	0.0340 U	0.0340	mg/Kg	AK101 8021B	Α.		08/28/04	09/10/04	MML
o-Xylene	0.0340 U	0.0340	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MML
	•	• • • • •	•						
Sogates						••	•		
1,4-Difluorobenzene <sun></sun>	95.9	•	%	AK101 8021B	Α	72-105	08/28/04	09/10/04	MML
4-Biomofluorobenzene <sum></sum>	105		% .	AK101 8021B	Α	50-150	08/28/04	09/10/04	MML
•									
Semivolatile Organic Fuels	Department							•	•
Diesel Range Organics	230	78.6	mg/Kg	AK102/103	В		08/31/04	09/01/04	JC
Residual Range Organics	1120	78.6	mg/Kg	AK102/103	ъ В		08/31/04	09/01/04	JC
Surroga tes	•					٠.			
n-Triacontane-d62 <surr></surr>	141	٠	· %	AK102/103	В	50-150	08/31/04	00/01/04	JC
5a Androstane <sun></sun>	87.2		%	AK102/103 AK102/103		50-150 50-150	08/31/04		JC JC
Ja Anni Ostano Suni>	67.2		70	AK102/103	. .		V0/31/U4	05/01/04	,
Solids		•							
Total Solids	96.5		%	SM20 2540O	В			09/07/04	AHP

Client Name

Project Name/# Client Sample 1D

1045539007 BGES Inc.

4th & Gambell 04-038-01 CP-7

Matrix Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time

Collected Date/Time

09/14/2004 16:14 08/28/2004 17:48 08/30/2004 8:14

Received Date/Time Technical Director

Stephen C. Ede

Released By

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
		:	<i>f</i> .	* .					• .
Volatile Fuels Departmen	nt			• •					
Gasoline Range Organics	2.37 U	2.37	mg/Kg	AK101 8021B	. A	• • •	08/28/04	09/10/04	MMI
Benzene	0.0119 U	0.0119	mg/Kg	AK101 8021B	` A		08/28/04	09/10/04	MMI
Tohiene	0.0474 U	0.0474	mg/Kg	AK101 8021B	Α	•	08/28/04	09/10/04	MMI
Ethylbenzene	0.0474 U	0.0474	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MMI
P & M -Xylene	0.0474 U	0.0474	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MMI
o-Xylene	0.0474 U	0.0474	mg/Kg	AK101 8021B	Α	•	08/28/04	09/10/04	MMI
					•			. •	
Su_rogates						.:	٠.		
1,4-Difluorobenzene <slin></slin>	98.5		%	AK101 8021B	·. A	72-105	08/28/04	09/10/04	MMI
4-Bromofluorobenzene <surr></surr>	92.4		%	AK101 8021B		50-150	08/28/04	09/10/04	MMI
	:								
					. *		·		
Semivolatile Organic Fue	els Departmen	t .					• • •		
Diesel Range Organics	329	81.3	mg/Kg	AK102/103	В		08/31/04	09/02/04	JC
Residual Range Organics	1820	81.3	mg/Kg	AK102/103	· В	•	08/31/04	09/02/04	JC
			•						
Surrogates		•	$f \rightarrow f$: ·	• •			
n-Triacontane-d62 <surr></surr>	99.7		%	AK102/103	В	50-150	08/31/04	09/02/04	JC
5a Androstane <surr></surr>	85.4		%	AK102/103	. B	50-150	08/31/04	09/02/04	JC
		. ,	•	•	•		* * * * * * * * * * * * * * * * * * *		•
		•.		:				• •	
Solids			٠.						
Total Solids	91.7		·· %	SM20 2540G	В			09/07/04	AHP
_ · · · - - · · · · ·					_		,		1 == 4.0

SGS Ref.# Client Name 1045539010

Project Name/#

BGES Inc. 4th & Gambell 04-038-01 TP-1 SG

Client Sample 1D Matrix

Soil/Solid

All Dates/Fimes are Alaska Standard Time

Printed Date/Time Collected Date/Time 09/14/2004 16:14 08/28/2004 9:40 08/30/2004 8:14

Received Date/Time

Technical Director

Stephen C. Ede

Released By_5

Sample Remarks:

Parameter	Results	PQL	Units'	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Fuels Departmen	it								• •
Gasoline Range Organics	2.13 U	2.13	mg/Kg	AK101 8021B	Α :	•	08/28/04	09/10/04	MML
Benzene	0.0107 U	0.0107	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
Toluene	0.0427 U	0.0427	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
Ethylbenzaie	0.0427 U	0.0427	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
P & M -Xylene	0.0427 U	0.0427	mg/Kg	AK101 8021B	. A		08/28/04	09/10/04	MML
o-Xylene	0.0427 U	0.0427	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MML
	•		· · ·						
Sogates				: •			• •	٠	
1,4-Difluorobenzene <surr></surr>	94	•	%	AK101 8021B	Α	72-105	08/28/04	09/10/04	MML
4-Bromofluorobenzene <sun></sun>	104		%	AK101 8021B		50-150		09/10/04	
* **	• •							•	
Semivolatile Organic Fue	ls Departmen	nt		*. * *					
Diesel Range Organics	20.4 U	20.4	mg/Kg	AK 102/103	В		08/31/04	09/01/04	JĆ
Residual Range Organics	20.4 U	20.4	mg/Kg	AK102/103	В		08/31/04		JC
1.2		20	6			•			
Surrogates						٠.			٠
n-Triacontane-d62 <sun></sun>	104		%	AK102/103	В	50-1 <i>5</i> 0	08/31/04	00/01/04	JC
5a Androstane <surr></surr>	.92.7	·	%	AK102/103 AK102/103		50-150 50-150	08/31/04		JC
Julianosanio San			. 70	AK102/103		20-120	00/31/04	03/01/04	
•		•		,	•				
Volatile Gas Chromatogra	phy/Mass Spe	ctroscopy			•		• •		
Dichlorodifluoromethane	0.0010.11			G11100 C0 D					53.47
Chloromethane	0.0213 U	0.0213	mg/Kg	SW8260B	A		08/28/04		
	0.0213 U	0.0213	mg/Kg	SW8260B	A		08/28/04		
Vinyl chloride	0.0213 U	0.0213	mg/Kg	SW8260B	A	٠.	08/28/04		
Bromomethane	0.0854 U	0.0854	mg/Kg	SW8260B	A	•	08/28/04		
Chloroethane	0.0854 U	0.0854	mg/Kg	SW8260B	(A		08/28/04		
Trichlorofluoromethane	0.0213 U	0.0213	mg/Kg	SW8260B	. A		08/28/04		
ichloroethene	0.0213 U	0.0213	mg/Kg	SW8260B	A		08/28/04		•
Acetone	0.213 U	0.213	mg/Kg	SW8260B	. A ::		08/28/04		
Carbon disulfide	0.0854 U	0.0854	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV

SGS Ref.# Client Name

1045539010 BGES Inc.

Project Name/# Client Sample ID Matrix

4th & Gambell 04-038-01 TP-1 SG Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 09/14/2004 16:14 08/28/2004 9:40 08/30/2004 8:14

Received Date/Time

Technical Director

Parameter	Results	PQL	Units	Methoti	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogz	aphy/Mass Sp	ectroscopy					:		:
	· · ·			·					_
Methylene chloride	0.0854 U	0.0854	mg/Kg	SW8260B	A			09/10/04	
trans-1,2-Dichloroethene	0.0213 U	0.0213	mg/Kg	SW8260B	A	•		09/10/04	
2-Butaaone (MEK)	0 213 U	0.213	mg/Kg	SW8260B	Α.		_	09/10/04	
2,2-Dichloropropane	0.0213 U	0.0213	mg/Kg	SW8260B	Α		•	09/10/04	
1,1,1-Trichloroethane	0.0213 U	0.0213	mg/Kg	SW8260B	Α '			09/10/04	
1,1-Dichloroethane	0.0213 U	0.0213	mg/Kg	SW8260B	. A			09/10/04	
cis-1,2-Dichloroethene	0.0213 U	0.0213	mg/Kg	SW8260B	A		,	09/10/04	
Bromochloromethane	0.0213 U	0.0213	mg/K.g	SW8260B	A			09/10/04	
oroform	0.0213 U	0.0213	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
xm tetrachloride	0.0213 U	0.0213	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
Benzene	0.0111 U	0.0111	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
1,2-Dichloroethane	0.0213 U	0.0213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
1,1-Dichloropropene	0.0213 U	0.0213	mg/Kg	SW8260B	· A		08/28/04	09/10/04	RM
Trichloroethene	0.0213 U	0.0213	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
1,2-Dichloropropane	0.0213 U	0.0213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
Dibromomethane	0.0213 U	0.0213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
Bromodichloromethane	0.0213 U	0.0213	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
1,1,2-Trichloroethane	0.0213 U	0.0213	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RM
2-Chloroethyl Vinyl Ether	0.0854 U	0.0854	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
cis-1,3-Dichloropropene	0.0213 U	0.0213	mg/Kg	SW8260B	A		08/28/04	09/10/04	RMY
4-Methyl-2-pentanone (MIBK)	0 213 U	0.213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
Toluene	0.0427 U	0.0427	mg/Kg	SW8260B	Α .		08/28/04	09/10/04	RM
trans-1,3-Dichloropropene	0.0213 U	0.0213	mg/Kg	SW8260B	A	12	08/28/04	09/10/04	RMV
Tetrachloroethene	4.09	0.213	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RMV
1,3-Dichlorppropane	0.0213 U	0.0213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
2-Hexanone	0.213 U	0.213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
Dibromochloromethane	0.0213 U	0.0213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
1,1,1,2-Tetrachloroethane	0.0213 U	0.0213	mg/Kg	SW8260B	. A		08/28/04	09/10/04	RM
1,2-Dibromoethane	0.0213 U	0.0213	mg/Kg	SW8260B	A			09/10/04	
Chlorobenzene	0.0213 U	0.0213	mg/Kg	SW8260B	 A			09/10/04	
Ethylbenzene	0.0213 U	0.0213	mg/Kg	SW8260B	A	• • •		09/10/04	
M - Xylene	0.0427 U	0.0213	mg/Kg	SW8260B	A			09/10/04	
o-Aylene	0.0427 U	0.0427	mg/Kg mg/Kg	SW8260B	A			09/10/04	
Styrene	0.0213 U	0.0213	mg/Kg mg/Kg	SW8260B	A			09/10/04	•

SGS Refi# Client Name

Project Name/#

Client Sample ID Matrix

1045539010

BGES Inc.

4th & Gambell 04-038-01 TP-1 SG

Soil/Solid .

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 09/14/2004 16:14 08/28/2004 9:40

Received Date/Time

08/30/2004 8:14

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogra	aphy/Mass (Spectroscopy			•	•			
Bromoform	0.0213 U	0.0213	mg/Kg	SW8260B	A		08/28/04	09/10/04	RMV
Isopropylbenzene (Cumene)	0.0213 U	0.0213	mg/Kg	SW8260B	. A	•	08/28/04	09/10/04	RMV
Bromobenzene	0.0213 U	0.0213	mg/Kg	SW8260B	. A		08/28/04	09/10/04	RMV
1,2,3-Triehloropropane	0.0427 U	0.0427	mg/Kg	SW8260B	. A		08/28/04	09/10/04	RMV
1,1,2,2-Tebachloroethane	0.0427 U	0.0427	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
n-Propylbenzene	0.0213 U	0.0213	mg/Kg	SW8260B	Α	٠.	08/28/04	09/10/04	RMV
2-Chlorotohiene	0.0213 U	0.0213	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RMV
4-Chlorotoluene	0.0213 U	0.0213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
,5-Trimethylbenzene	0.0213 U	0.0213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
Butylbenzene	0.0213 U	0.0213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
1,2,4-Trimethylbenzene	0.0213 U	0.0213	mg/Kg	SW8260B	Α	: .	- 08/28/04	09/10/04	RMV
sec-Butylbenzene	0.0213 U	0.0213	mg/Kg	SW8260B	Α			09/10/04	
1,3-Dichlorobenzene	0.0213 U	0.0213	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RMV
4-Isopropyltoluene	0.0213 U	0.0213	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
1.4-Dichlorobenzene	0.0213 U	0.0213	mg/Kg	SW8260B	A		08/28/04	09/10/04	RMV
1,2-Dichlorobenzene	0.0213 U	0.0213	mg/Kg	SW8260B	A			09/10/04	
n-Butylbenzene	0.0213 U	0.0213	mg/Kg	SW8260B	A			09/10/04	
1,2-Dibromo-3-chloropropane	0.0854 U	0.0854	mg/Kg	SW8260B	A			09/10/04	
1.2.4-Trichlorobenzene	0.0427 U	0.0427	mg/Kg	SW8260B	A			09/10/04	_
Hexachlorobutadiene	0.0427 U	0.0427	mg/Kg	SW8260B	Α			09/10/04	
Naphthalene	0.0427 U	0.0427	mg/Kg	SW8260B	·A		•	09/10/04	
1,2,3-Trichlorobenzene	0.0427 U	0.0427	mg/Kg	SW8260B	A			09/10/04	
Methyl-t-butyl ether	0.0341 U	0.0341	mg/Kg	SW8260B	A			09/10/04	
,		0,05 / 1		502002		·		03/10/04:	14,1,
Surrogates						,	•		
Dibromofluoromethane <sum></sum>	100		%	SW8260B	A 8	3-119	08/28/04	09/10/04	ŘΜV
1,2-Dichloroethane-D4 <sun></sun>	102		%	SW8260B		3-112 3-122		09/10/04	
Toluene-d8 <surr></surr>	101		%	SW8260B		3-122 37-115		09/10/04	•
4-Bromofluorobenzene <sun></sun>	97.8	•	%	SW8260B		6-133		09/10/04	
			/ <u>0</u>	- 5 W 0200D	Α 4		U0/20/U4	. 10/04	L/IAI A
	•				•				
S is			•						
Total Solids	97.5	•	%	SM20 2540G	В	•	`	09/07/04	AHP
	21.0		. 70	514170 5740Q	D.			U3/U1/U4	WÜL

SGS

SGS Ref.# Client Name Project Name/# Client Sample ID Matrix 1045539010 BGES Inc. 4th & Gambell 04-038-01 TP-I SG Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time Received Date/Time Technical Director 09/14/2004 16:14 08/28/2004 9:40 08/30/2004 8:14 Stephen C. Ede

Released By



SGS Ref.# Client Name Project Name/# Client Sample 1D

Carbon disulfide

0.0581 U

0.0581

mg/Kg

SW8260B

1045539011 BGES 1nc.

4th & Gambell 04-038-01 TP-2 S7

Client Sample 1D TP-2 S7
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time
Collected Date/Time

09/14/2004 16:14 08/28/2004 12:24

Received Date/Time

08/30/2004 8:14

08/28/04 09/10/04 RMV

Technical Director

Stephen C. Ede

Released By 5 have Francisco

Sample Remarks:									•
Parameter	Results	PQL	Units	Method	Container 1D	Allowable Limits	Prep Date	Analysis Date	mit
Volatile Fuels Departme	nt.			•					
votacite ruete peparume	· ·			•			•		
Gasoline Range Organics	1.67	1.45	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MMI
Benzene	0.00726 U	0.00726	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
Toluene	0.0290 U	0.0290	mg/Kg	AK101 8021B	' A		08/28/04	09/10/04	MMI
Ethylbenzene	0.0290 U	0,0290	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
P & M -Xylene	0.0290 U	0.0290	mg/Kg	AK101 8021B	Α	•	08/28/04	09/10/04	MML
o-Xylene	0.0290 U	0.0290	mg/Kg	AK101 8021B	Α	•	08/28/04	09/10/04	MML
		. ·	• •		•	. *•	•	• :	
Sùógates	·				·	,			
1,4-Difluorobenzene <surr></surr>	96.8		%	AK101 8021B	A.	72-105	08/28/04	09/10/04	MML
4-Bromofluorobenzene <sutr></sutr>	104		%	AK101 8021B	` A	50-150	08/28/04	09/10/04	MML
* .		•	• • • • • • • • • • • • • • • • • • • •			•			•
Semivolatile Organic Fu	els Departmen	nt	• .	• . •	-				
Diesel Range Organics	18.6 U	18.6	mg/Kg	AK102/103	В		08/31/04	09/01/04	JC
Residual Range Organics	18.6 U	18.6	mg/Kg	AK102/103	В		08/31/04	09/01/04	JC
		·							
Surrogates	•						•	. :	
n-Triacontane-d62 <sum></sum>	98.6		%	AK102/103	В	50-150	08/31/04	09/01/04	JC
5a Androstane <surr></surr>	83.2 .		%	AK102/103	В.	50-150	08/31/04	09/01/04	JC
						• .			
Volatile Gas Chromatogr	aphy/Mass Spe	ectroscopy					:		
Dichlorodifluoromethane	0.0145 U	0.0145	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RMV
Chloromethane	0.0145 U	0.0145	mg/Kg	SW8260B	A			09/10/04	•
Vinyl chloride	0.0145 U	0.0145	mg/Kg	SW8260B	A			09/10/04	
Bromomediane	0.0581 U	0.0143	mg/Kg	SW8260B	. A			09/10/04	
Chloroethane \	0.0581 U	0.0581	mg/Kg	SW8260B	•			09/10/04	
Trichlorofluoromethane	0.0145 U	0.0381	mg/Kg	SW8260B	A		•	09/10/04	
ichloroethene	0.0145 U	0.0145	mg/Kg	SW8260B SW8260B	A .		-	09/10/04	
Acetone	0.145 U	0.0145	mg/Kg	SW8260B SW8260B	A A		08/28/04		

SGS Ref.# Client Name

1045539011 BGES Inc.

Project Name/# Client Sample ID Matrix

d-Xylene

Styrene

0.0145 U

0.0145 U

0.0145

0.0145

mg/Kg

mg/Kg

SW8260B

SW8260B

4th & Gambell 04-038-01 TP-2 S7

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 09/14/2004 16:14

Received Date/Time Technical Director

08/28/2004 12:24 08/30/2004 8:14

08/28/04 09/10/04 RMV

08/28/04 09/10/04 RMV

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	lnit
Volatile G as Chromatogra	aphy/Mass Spe	atroscopy	٠.	· .			٠		
Methylene chloride	0.0581 U	0.0581	mg/Kg	SW8260B	À	•	08/28/04	09/10/04	DMS
trans-1,2-Dichloroethene	0.0381 U 0.0145 U	0.0381	mg/Kg	SW8260B	A			09/10/04	
2-Butanone (MEK)	0.145 U	0.0145	mg/Kg	SW8260B	A ·			09/10/04	
2,2-Dichloropropane	0.145 U	0.145	mg/Kg	SW8260B	A	•		09/10/04	
1,1,1-Trichloroethane	0.0145 U	0.0145	mg/Kg	SW8260B	A	•		09/10/04	
cis-1,2-Dichloroethene	0.0145 U	0.0145	mg/Kg	SW8260B	A			09/10/04	
1,1-Dichloroethane	0.0145 U	0.0145	mg/Kg	SW8260B	A	٠.		09/10/04	
Bromochloromethane	0.0145 U	0.0145	mg/Kg	SW8260B	A			09/10/04	
profonn	0.0145 U	0.0145	mg/Kg	SW8260B	A	•		09/10/04	•
bon tetrachloride	0.0145 U	0.0145	mg/Kg	SW8260B	A	· · .		09/10/04	
	0.0145 U			SW8260B	A			09/10/04	
Benzene		0.00755 0.0145	mg/Kg	SW8260B		•		09/10/04	
1,2-Dichloroethane	0.0145 U		mg/Kg	SW8260B	A	•		09/10/04	
1,1-Dichloropropene	0.0145 U	0.0145	mg/Kg	SW8260B	A A			09/10/04	
Trichloroethene	0.0145 U	0.0145	mg/Kg					09/10/04	
1,2-Dichloropropane	0.0145 U	0.0145	mg/Kg	SW8260B	A				
Dibromomethane	0.0145 U	0.0145	mg/Kg	SW8260B	Α	٠.		09/10/04	
Bromodichioromethane	0.0145 U	0.0145	mg/Kg	SW8260B	A			09/10/04	
1,1,2-Trichloroethane	0.0145 U	0.0145	mg/Kg	SW8260B	A	•		09/10/04	
2-Chloroethyl Vinyl Ether	0.0581 U	0.0581	mg/Kg	SW8260B	Α			09/10/04	
cis-1,3-Dichloropropene	0.0145 U	0.0145	mg/Kg	SW8260B	Α	•		09/10/04	
4-Methyl-2-pentanone (MIBK)	0.145 U	0.145	mg/Kg	SW8260B	Α	•		09/10/04	
Toluene	0.0290 U	0.0290	mg/Kg	SW8260B	Α	•		09/10/04	
trans-1,3-Dichloropropene	0.0145 U	0.0145	mg/Kg	SW8260B	Α			09/10/04	
Tetrachloroethene	4.20	0.145	mg/Kg	SW8260B	. A			09/10/04	
1,3-Dichloropropane	0.0145 U	0.0145	mg/Kg	SW8260B	\mathbf{A}_{i}		08/28/04	09/10/04	RMV
2-Hexanone	0.145 U	0.145	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RMV
Dibromochloromethane	0.0145 U	0.0145	nig/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
1,1,1,2-TetrachIoroethane	0.0 i 45 U	0.0145	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
1,2-Dibromoethane	0.0145 U	0.0145	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RMV
Chlorobenzene	0.0145 U	0.0145	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
Fthylbenzene	0.0145 U	0.0145	mg/Kg	SW8260B	A		08/28/04	09/10/04	RMV
M -Xylene	0.0290 U	0.0290	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV



SGS Ref.# Client Name Project Name/# Client Sample ID Matrix

1045539011 BGES Inc. 4th & Gambell 04-038-01 TP-2 S7

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time Received Date/Time

09/14/2004 16:14 08/28/2004 12:24 08/30/2004 8:14

Stephen C. Ede Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogr	aphy/Mass Sp	ectroscopy	•			:			
Bromoform	0.0145 U	0.0145	mg/Kg	SW8260B	Α .		08/28/04	09/10/04	RMV
Isopropylbenzene (Cumene)	0.0145 U	0.0145	mg/Kg	SW8260B	. A			09/10/04	
Bromobenzene	0.0145 U	0.0145	mg/Kg	SW8260B	A			09/10/04	
1,2,3-Trichloropropane	0.0290 U	0.0143	mg/Kg	SW8260B	A		,	09/10/04	
1,1,2,2-Tetrichloroethane	0.0290 U	0.0290	mg/Kg	SW8260B	A			09/10/04	
n-Propylbenzene	0.0145 U	0.0145	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RMV
2-Chlorotoluene	0.0145 U	0.0145	mg/Kg	SW8260B	Α .	. •	08/28/04	09/10/04	RMV
4-Chlorotoluene	0.0145 U	0.0145	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RM
5-Trimethylbenzene	0.0145 U	0.0145	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM\
-Butylbenzene	0.0145 U	0.0145	mg/Kg	SW8260B	Α .		08/28/04	09/10/04	RMV
1,2,4-Trimethylbenzene	0.0145 U	0.0145	mg/Kg	SW8260B	Α .		08/28/04	09/10/04	RMV
sec-Butylbenzene	0.0145 U	0.0145	mg/Kg	SW8260B	Α.		08/28/04	09/10/04	RMV
1,3-Dichlorobenzene	0.0145 U	0.0145	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
4-Isopropyltoluene	0.0145 U	0.0145	mg/Kg·	SW8260B	A	•	08/28/04	09/10/04	RM
1,4-Dichiorobenzene	0.0145 U	0.0145	ing/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
1,2-Dichlorobenzene	0.0145 U	0.0145	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RM
n-Butylbenzene	0.0145 U	0.0145	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
1,2-Dibrpmo-3-chloropropane	0.0581 U	0.0581	mg/Kg	SW8260B	A		08/28/04	09/10/04	RMV
1,2,4-Trichlorobenzene	0.0290 U	0.0290	mg/Kg	SW8260B	A		08/28/04	09/10/04	RMV
Hexachlorobutadiene	0.0290 U	0.0290	mg/Kg	SW8260B	. A		08/28/04	09/10/04	RMV
Naphthalene	0.0290 U	0.0290	mg/Kg	SW8260B	. A	•	08/28/04	09/10/04	RM
Methyl-t-butyl ether	0.0232 U	0.0232	mg/Kg	SW8260B	. A	•	08/28/04	09/10/04	RM
1,2,3-Trichlorobenzene	0.0290 U	0.0290	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
Surrogates				•					,
Dibromofluoromethane <sun></sun>	99.9		%	SW8260B	A	83-119	08/28/04	09/10/04	ŘΜ\
1,2-Dichloroethane-D4 <surr></surr>	101		%	SW8260B	A	83-122	08/28/04	09/10/04	RM\
Toluene-d8 <sun></sun>	99.7		%	SW8260B	Α.	87-115	08/28/04	09/10/04	RM\
4-Bromofluorobenzene <surr></surr>	101		%	SW8260B	Α	46-133	08/28/04	09/10/04	RMV
				•			•		٠.
S ls		. •	. :					•	
Total Solids	96.6		%	SM20 2540G	В			09/07/04	AH

1045539012

Client Name

BGES Inc.

Project Name/# Client Sample 1D

4th & Gambell 04-038-01 TP-3 S7

Matrix

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time

Collected Date/Time

09/14/2004 16:14 08/28/2004 14:17 08/30/2004 8:14

Received Date/Time Technical Director

Stephen C. Ede

Released By

Samn	ما	Rema	rke
חוושכ	16	VCIII	172

arameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
olatile Fuels Departme	nt.		•						
· -	•								•
Gasoline Range Organics	1.42 U	1.42	mg/Kg	AK101 8021B	A			09/10/04	
Benzene	0.00710 U	0.00710	mg/Kg	AK101 8021B	Α.	•		09/10/04	
Toluene	0.0284 U	0.0284	mg/Kg	AK101 S021B	A			09/10/04	
Ethylbenzene	0.0284 U	0.0284	mg/Kg	AK101 8021B	. A	•		09/10/04	
P & M -Xylene	0.0284 U	0.0284	mg/Kg		A			09/10/04	
o-Xylene	0.0284 U	0.0284	mg/Kg	AK101 8021B	A	•	08/28/04	09/10/04	MM
				• • • •		•.		.•	٠.
ogates	•	•						•	
1,4-Difluorobenzene <surt></surt>	97.8		%	AK101 8021B	Α	72-105	08/28/04	09/10/04	MM
4-Bromoflaorobenzene <sum></sum>	103		%	AK101 8021B	Ā	50-150	08/28/04	09/10/04	MM
	•					•		. •	
		•	. •						••
emivolatile Organic Fu	els Departaner	nt 🦙	•		•				
Diesel Range Organics	19.7 U	19.7	mg/Kg	AK102/103	В		.08/31/04	09/01/04]
Residual Range Organics	19.7 U	19.7	mg/Kg	AK102/103	В		08/31/04	09/01/04	
		•			· ·				
urrogates	*						•		
n-Triacontane-d62 <surr></surr>	90.8		· %	AK102/103	В	50-150	08/31/04	09/01/04	j
5a Androstane <sum></sum>	78.5	•	%	AK102/103		50-150	08/31/04		
									_
	•			•					
olatile Gas Chromatogr	aphy/Mass Spe	ectroscopy	•					₹	
Dichlorodifluoromethane	0.0142 U	0.0142	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
Chloromethane	0.0142 U	0.0142	mg/Kg		A			09/10/04	
Vinyl chloride	0.0142 U	0.0142	mg/Kg	SW8260B	· A			09/10/04	
Bromomethane	0.0568 U	0.0568	mg/Kg	SW8260B	A			09/10/04	
Chloroethane	0.0568 U	0.0568	mg/Kg	SW8260B	A			09/10/04	
Trichlorofluoromethane	0.0142 U	0.0308	mg/Kg	SW8260B	A			09/10/04	
Dichloroethene	0.0142 U 0.0142 U	0.0142	mg/K.g	SW8260B	Ā			09/10/04	
Acstone	0.0142 U	0.0142	mg/Kg mg/Kg	SW8260B	· A			09/10/04	
Carbon disulfide	U.142 U	0.142	mR.v.R	3 TT 020VD	Λ		JUI 40/ U4	09/10/04	



SGS Ref.# Client Name Project Name/# Client Sample ID Matrix

1045539012 BGES Inc.

4th & Gambell 04-038-01 TP-3 S7

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 09/14/2004 16:14 08/28/2004 14:17

Received Date/Time

08/30/2004 8:14

Technical Director

arameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
olatile Gas Chromatogr	aphy/Mass Spe	ectroscopy							
Methylene chloride	0.0568 U	0.0568	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
trans-1,2-DichIoroethene	0.0142 U	0.0142	mg/Kg	SW8260B	Α .		08/28/04	09/10/04	RM'
2-Butanone (MEK)	0.142 U	0.142	mg/Kg	SW8260B	. A .	•	08/28/04	09/10/04	RM
2,2-Dichloropropane	0.0142 U	0.0142	mg/Kg	SW8260B	· A	• •	08/28/04	09/10/04	RM
1,1,1-Trichloroethane	0.0142 U	0.0142	mg/Kg	SW8260B	Α	·	08/28/04	09/10/04	RM
cis-1,2-Diohloroethene	0.0142 U	0.0142	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
1,1-Dichloroethane	0.0142 U	0.0142	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
Bromochloromethane	0.0142 U	0.0142	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
- hloroform	0.0142 U	0.0142	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
rbon tetrachloride	0.0142 U	0.0142	mg/Kg	SW8260B	A	•		09/10/04	* .
Benzene	0.00738 U	0.00738	mg/Kg	SW8260B	. A	. ,	08/28/04	09/10/04	RM
1,1-Dichloropropene	0.0142 U	0.0142	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
1,2-Dichloroethane	0.0142 U	0.0142	mg/Kg	SW8260B	Α.	•	08/28/04	09/10/04	RM
Trichloroethene	0.0250	0.0142	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
1,2-Dichloropropane	0.0142 U	0.0142	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
Dibromomethane	0.0142 U	0.0142	mg/Kg	SW8260B	Α			09/10/04	
Bromodichioromethane	0.0142 U	0.0142	mg/Kg	SW8260B	A	•	08/28/04	09/10/04	RM
2-Chloroethyl Vinyl Ether	0.0568 U	0.0568	mg/Kg	SW8260B	A			09/10/04	
1,1,2-Trichlproethane	0.0142 U	0.0142	mg/Kg	SW8260B	. A			09/10/04	
cis-1,3-Dichloropropene	0.0142 U	0.0142	mg/Kg	SW8260B	· A	٠.		09/10/04	
4-Methyl-2-pentanone (MIBK)	0.142 U	0.142	mg/Kg	SW8260B	A		-	09/10/04	
Toluene	0.0284 U	0.0284	mg/Kg	SW8260B	Α .	•		09/10/04	
trans-1,3-Dichloropropene	0.0142 U	0.0142	mg/Kg	SW8260B	. A			09/10/04	
Tetrachloroethene	1.73	0.142	mg/Kg	SW8260B	Α			09/10/04	
1,3-Dichloropropane	0.0142 U	0.0142	mg/Kg	SW8260B	A .			09/10/04	
2-Hexanone	0.142 U	0.0142	mg/Kg	SW8260B	A			09/10/04	
Dibromochloromethane	0.0142 U	0.142	mg/Kg	SW8260B	A			09/10/04	
1,1,1,2-Tetrachloroethane	0.0142 U	0.0142	mg/Kg	SW8260B				09/10/04	
1,2-Dibromoethane	0.0142 U	0.0142	mg/Kg	SW8260B	A				
Chlorobenzene	0.0142 U 0.0142 U		, -	SW8260B SW8260B	A		-	09/10/04	
Ethylbenzene		0.0142	mg/Kg		A			09/10/04	•
M -Xylene	0.0142 U	0.0142	mg/Kg	SW8260B	A			09/10/04	
i	0.0284 U	0.0284	mg/Kg	SW8260B.	. A	•		09/10/04	
ylene Styrene	0.0142 U	0.0142	mg/Kg	SW8260B	A	,	U8/28/04	09/10/04	RM

SGS

SGS Ref.# Client Name Project Name/# 1045539012 BGES Inc. 4dr & Gambell 04-038-01 TP-3 S7

Client Sample ID TP-3 S7
Matrix Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time Received Date/Time 09/14/2004 16:14 08/28/2004 14:17 08/30/2004 8:14

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogr	aphy/Mass Sp	ectroscopy	•					•	
Bromoform	0.0142 U	0.0142	mg/Kg	SW8260B	A	•	08/28/04	09/10/04	RM
Isopropylbenzene (Cumene)	0.0142 U	0.0142	mg/Kg	SW8260B	. A		08/28/04	09/10/04	ŘMV
Bromobenzene	0.0142 U	0.0142	mg/Kg	SW8260B	. A		08/28/04	09/10/04	RMV
1,2,3-Trichloropropane	0.0284 U	0.0284	mg/Kg	SW8260B	Α.		08/28/04	09/10/04	RM
1,1,2,2-Tetrachloroethane	0.0284 U	0.0284	mg/Kg	SW8260B	A	-	08/28/04	09/10/04	RMV
n-Propylbenzene	0.0142 U	0.0142	mg/Kg	SW8260B	A		08/28/04	09/10/04	RMV
2-Chlorotoluene	0.0142 U	0.0142	mg/Kg	SW8260B	Α.	•	08/28/04	09/10/04	RM
4-Chiorotoluene	0.0142 U	0.0142	mg/Kg	SW8260B	A :		08/28/04	09/10/04	RMN
3,5-Trimethylbenzene	0.0142 U	0.0142	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
t-Butylbenzene	0.0142 U	0.0142	mg/Kg	SW8260B	À		08/28/04	09/10/04	RMV
1,2,4-Trimethylbenzene	0.0142 U	0.0142	mg/Kg	SW8260B	A	•	08/28/04	09/10/04	RM
sec-Butylbenzene	0.0142 U	0.0142	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMY
1,3-Dichlorobenzene	0.0142 U	0.0142	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
4-Isopropyltoluene	0.0142 U	0.0142	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
1,4-Dichlorobenzene	0.0142 U	0.0142	mg/Kg	SW8260B	\mathbf{A}		08/28/04	09/10/04	RM
1,2-Dichlorobenzene	0.0142 U	0.0142	mg/Kg	SW8260B	Α .		08/28/04	09/10/04	RM
n-Butylbenzene	0.0142 U	0.0142	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
1,2-Dibromo-3-chloropropane	0.0568 U	0.0568	mg/Kg	SW8260B	· A		08/28/04	09/10/04	RM
1,2,4-Trichlorobenzene	0.0284 U	0.0284	mg/Kg	SW8260B	. A		08/28/04	09/10/04	RM
Hexachlorobutadiene	0.0284 U	0.0284	mg/Kg	SW8260B	Α .	• •	08/28/04	09/10/04	RM
Naphthalene	0.0284 U	. 0.0284	mg/Kg	SW8260B	A ·		08/28/04	09/10/04	RM
1,2,3-Trichlorobenzene	0.0284 U	0.0284	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RM
Methyl-t-butyl ether	0.0227 U	0.0227	mg/Kg	SW8260B	Α	. •		09/10/04	
				:				*	
Surroga tes	•	. ,							
Dibromofluoromethane <sun></sun>	104		%	SW8260B	Α 8	3-119	08/28/04	09/10/04	RM
1,2-Dichloroethane-D4 <sun></sun>	107	• •	%	SW8260B	A 8	3-122	08/28/04	09/10/04	RM
Toluene-d8 <sun></sun>	103		%	SW8260B		7-115		09/10/04	
4-Bromofluorobenzene <sun></sun>	104	•	%	SW8260B		6-133		09/10/04	
			•				•		
ds		· · .			•				
	97.7		%	SM20 2540G	В			09/07/04	AHI



SGS Ref.# Client Name Project Name/#

Matrix

1045539013 BGES inc.

Project Name/# 4th & Gambell 04-038-01 Client Sample 1D TP-4 S3

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time

09/14/2004 16:14 08/28/2004 15:37

Collected Date/Time Received Date/Time

08/30/2004 8:14

Technical Director

Stephen C. Ede

Released By Shanning Post Annual Post Annu

		Sam	ole	Rem	arks
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Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
				•		. ·			
Volatile Fuels Department	t .	• .			••			•	: .
Gasoline Range Organics	1.44 U	1.44	mg/Kg	AK101 8021B	A .		08/28/04	09/10/04	MMI
Benzene	0.00720 U	0.00720	mg/Kg	AK101 8021B	Α.		08/28/04	09/10/04	MMI
Toluene ·	0.0288 U	0.0288	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	ММІ
Ediylbenzene	0.0288 U	0.0288	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MMI
P & M -Xylene	0.0288 U	0.0288	mg/Kg	AK101 8021B	Á		08/28/04	09/10/04	MMI
o-Xylene	0.0288 U	0.0288	mg/Kg	AK101 8021B				09/10/04	
		0.02.00				٠.		7.	
Sugates									
1,4-Difluorobenzene <sun></sun>	93.9	•	%	AK101 8021B	Α	72-105	08/28/04	09/10/04	MMI
4-Bromofluorobenzene <surr></surr>	101		· %	AK101 8021B		50-150		09/10/04	
1 Diomondoconto Sun	101			711101 00212	•				,
		•		•	•			:	
Semivolatile Organic Fue	ls Depeurtmen	nt	•	•	•	· . :			
Diesel Range Organics	20.0 U	20.0	mg/Kg	AK102/103	В		08/31/04	09/01/04	JC
Residual Range Organics	20.0 U	20.0	mg/Kg	AK102/103	В			09/01/04	JC
resident rungs Organics	20.00	20.0	6.126	111102/103		• • •	00/21/0,	05,01,0	
Surrogates			•				•	. ,	
n-Triacontane-d62 <surr></surr>	93.2		. · %	AK102/103	В	50-150	08/31/04	09/01/04	JC
5a Androstane <surr></surr>	95.2 84		. %	AK102/103 AK102/103		50-150		09/01/04	JC
3a Androstane \surr>	04 ,		- 70	AK102/103	ъ.	30-130	00/31/04	03/01/04	
			•		•			•	
Solids	•		•	•		•.			
		•			•				
Total Solids	96.5		%	SM20 2540G	В	•	•	09/07/04	AHP
			• • •				•	,	

Matrix

Client Name

Project Name/# Client Sample 1D 1045539014 BGES Inc.

4th & Gambell 04-038-01 TP-5 S2

Soil/Solid

All Dates/Times are Alaska

Printed Date/Time

Collected Date/Time Received Date/Time

09/14/2004 16:14 08/28/2004 16:26 08/30/2004 8:14

Technical Director

Stephen C. Ede

Released By

Sample	Remarks
	LOUGH WO

Parameter	Resulte	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	lnit
							•		
Volatile Fuels Departme	ent			•	•			•	
Gasoline Range Organics	1.72 U	1.72	mg/Kg	- AK101 8021B	\mathbf{A}^{\cdot}		08/28/04	09/10/04	MML
Benzene	0.00859 U	0.00859	mg/Kg	AK101 8021B	A -		08/28/04	09/10/04	MML
Toluene ·	0.0344 U	0.0344	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MMI
Ethylbenzene	0.0344 U	0.0344	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MML
P & M -Xylene	0.0344 U	0.0344	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MML
o-Xylene	0.0344 U	0.0344	mg/Kg	AK101 8021B	A	٠	08/28/04	09/10/04	MML
			• .			•			
sugates		•					,	•	
1,4-Difluorobenzene <surr></surr>	95.7		%	AK101 8021B	. A ,	72-105	08/28/04	09/10/04	MML
4-Bromofluorobenzene <sun></sun>	104	. •	%	AK101 8021B	Α	50-150	08/28/04	09/10/04	MML
	٠,								
Semivolatile Organic Fu	iels Departmen	it	·		•			•	
Diesel Range Organics	19.8 U	19.8	mg/Kg	AK102/103	. B		08/31/04	09/01/04	JC
Residual Range Organics	19.8 U	19.8	mg/Kg	AK102/103	· B			09/01/04	JC
	1				•	• • •			
SurrogateS				•	•				•
n-Triacontane-d62 <surr></surr>	88.8		%	AK102/103	В	50-150	08/31/04	09/01/04	JC
5a Androstane <surr></surr>	83.2		%	AK102/103		50-150	08/31/04		JC
					, , ,	·			
	•								
Soli ds		• .*	• • •					•	
Total Solids	97.0		%	SM20 2540G	В			09/07/04	A LITD

SGS Ref.# Client Name

Project Name/# Client Sample 1D Matrix

1045539015

BGES Inc.

4th & Gambell 04-038-01 TP-6 S2

Soll/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 09/14/2004 16:14 08/28/2004 17:27

Received Date/Time Technical Director

08/30/2004 8:14 Stephen C. Ede

Released By

Sample Remarks:

Parameter	Results	٠.	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	lmt
									•	
Volatile Fuels Departmen	it									
Gasoline Range Organics	1.40 U		1.40	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MMI
Benzene	0.00702 U		0.00702	mg/Kg	AK101 8021B	Α .		08/28/04	09/10/04	MMI
Toluene	0.0281 U		0.0281	mg/Kg	AK101 8021B	- A		08/28/04	09/10/04	MMI
Ethylbenzene	0.0281 U		0.0281	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MMI
P & M -Xylene	0.0281 U		0.0281	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MMI
o-Xylene	0.0281 U		0.0281	mg/Kg	AK101 8021B	. A		08/28/04	09/10/04	MMI
		٠						٠.		
Surrogates		•				•				٠.
1,4-Difluorobenzene <surr></surr>	95.8	•	•	%	AK101 8021B	A .	72-105	08/28/04	09/10/04	MML
4-Bromofluorobenzene <sun></sun>	101			% .	AK101 8021B	A	50-150	08/28/04	09/10/04	MML
Semivolatile Organic Fue	ls Departm	ent				٠.				
Diesel Range Organics	20.5 U		20.5	mg/Kg	AK102/103	В		08/31/04	09/01/04	JĊ
Residual Range Organics	20.5 U	٠ :	20.5	mg/Kg	AK102/103	В		08/31/04	09/01/04	JC
Surrogates							٠.			٠.,
n-Triacontane-d62 <surr></surr>	89.5			%	AK102/103	В	50-150	08/31/04	09/01/04	JC
5a Androstane <surr></surr>	79.9			%	AK102/103	В	50-150	08/31/04	09/01/04	JC
Solids									٠.	
30 110 0	•									
Total Solids	97.4		•	%	SM20 2540G	В			09/07/04	AHP



Client Name

Project Name/# Client Sample 1D Matrix ·

1045539016

BGES Inc.

4th & Gambell 04-038-01 Trip Blank

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time

Received Date/Time

09/14/2004 16:14 08/28/2004 10:05 08/30/2004 8:14

Technical Director Stephen C. Ede

Released By

Sample Remarks:

·	_					Allowable	Prep	Analysis	
Parameter.	Results	PQL	Units	Method	Container ID	Limits	Date	Date	hiit
Volatile Fuels Departmen	nt						•		
· · · · · · · · · · · · · · · · · · ·	•								
Gasoline Range Organics	2.59 U	2.59	.)mg/Kg	AK101 8021B	A			09/10/04	
Benzene	0.0129 U	0,0129	mg/Kg	AK101 8021B	Α			09/10/04	
Toluene	0.0518 U	0.0518	mg/Kg	AK101 8021B	A `			09/10/04	
Ethylbenzene	0.0518 U	0.0518	mg/Kg	AK101 8021B	A	-		09/10/04	
P & M -Xylene	0.0518 U	0.0518	mg/Kg	AK101 8021B	A			09/10/04	
o-Xylene	0.0518 U	0.0518	mg/Kg	AK101 8021B	A	•	08/28/04	09/10/04	MML
							٠.	•	
Su0gates					•			•	
1,4-Difluorobenzene <sun></sun>	94.2		%	AK101 8021B	A ,	72-105	08/28/04	09/10/04	MML
4-Brpmofluorobenzene <surr></surr>	107		- %	AK101'8021B	A	50-150	08/28/04	09/10/04	MML
						-			
				•					
Volatile Gas Chromatogra	aphy/Mass Spe	ectroscopy		• •					
Dichlorodifluoromethane	0.0259 U	0.0259	mg/Kg	SW8260B	A -		.08/28/04	09/10/04	RMV
Chloromethane	0.0259 U	0.0259	mg/Kg	SW8260B	A		08/28/04	09/10/04	RMV
Vinyl chloride	0.0259 U	0.0259	mg/Kg	SW8260B	Α	• • •	08/28/04	09/10/04	RMV
Bromomethane	0.104 U	. 0.104	mg/Kg	SW8260B	Α.		08/28/04	09/10/04	RMV
Chloroethane	0.104 U	0.104	mg/Kg	SW8260B	Α.	-	08/28/04	09/10/04	RMV
Trichlorofluoromethane	0.0259 U	0.0259	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
1,1-Dichloroethene	0.0259 U	0.0259	mg/Kg	SW8260B	A .		08/28/04	09/10/04	RMV
Acetone	0.259 U	0.259	mg/Kg	SW8260B	Α.	,	08/28/04	09/10/04	RMV
Carbon disulfide	0.104 U	0.i04	mg/Kg	SW8260B	A		08/28/04	09/10/04	RMV
Methylene chloride	0.104 U	0.104	mg/Kg	SW8260B	A		08/28/04	09/10/04	RMV
trans-1,2-Dichloroethene	0.0259 U	0.0259	mg/Kg	SW8260B	A			09/10/04	
2-Butanone (MEK)	0.259 U	0.259	mg/Kg	SW8260B	A			09/10/04	
2,2-Dichloropropane	0.0259 U	0.0259	mg/Kg	SW8260B	A		, .	09/10/04	
1,1,1-Trichloroethane	0.0259 U	0.0259	mg/Kg	SW8260B	Α .		08/28/04		
cis-1,2-Dichloroethene	0.0259 U	0.0259	mg/Kg	SW8260B	Α		08/28/04	•	
ichloroethane	0.0259 U	0.0259	mg/Kg	SW8260B	. A		08/28/04		
mochloromethane	0.0259 U	0.0259	mg/Kg	SW8260B	A		08/28/04		
F HICCHIOIOHICHIANE	, 0.0239 0	0.0237	mg/Kg	D 17 0200D	- ^		03/20/04	09/10/04	YGAT A



SGS Ref.# Client Name Project Name/# Client Sample ID Matrix

1045539016 BGES Inc.

4th & Gambell 04-038-01 Trip Blank Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 09/14/2004 16:14 08/28/2004 10:05 08/30/2004 8:14

Received Date/Time Technical Director

arameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Īmit
								•	· ·
olatile Gas Chromatogra	aphy/Mass Spe	ectroseopy				• •		-	
Carbon tetrachloride	0.0259 U	0.0259	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
Benzene	0.0135 U	0.0135	mg/Kg	SW8260B	Α.		08/28/04	09/10/04	RM
1,1-Dichloropropene	0.0259 U	0.0259	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
1,2-Dichloroethane	0.0259 U	0.0259	mg/Kg	SW8260B	, A		08/28/04	09/10/04	RM
Trichloroethene	0.0259 U	0.0259	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
1,2-Dichloropropane	0.0259 U	0.0259	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
Dibromomethane	0.0259 U	0.0259	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
Bromodichioromethane	0.0259 U	0.0259	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
loroethyl Vinyl Ether	0.104 U	0,104	mg/Kg	SW8260B	· A	٧,	08/28/04	09/10/04	RM
2-Trichloroethane	0.0259 U	0.0259	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
cis-1,3-Dichloropropene	0.0259 U	0.0259	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
4-Methyl-2-pentanone (MIBK)	0.259 U	0.259	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RM
Toluene	.0.0518 U	0.0518	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RM
trans-1,3-Dichloropropene	0.0259 U	0.0259	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
Tetrachloroethene	0.0259 U	0.0259	ing/Kg	SW8260B	Α		08/28/04	09/10/04	RM
1,3-Dichloropropane	0.0259 U	0.0259	mg/Kg	SW8260B	. A		08/28/04	09/10/04	RM
2-Hexanone	0 259 U	0.259	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
Dibromochloromethane	0.0259 U	0.0259	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
1,1,1,2-Tetrachloroethane	0.0259 U	0.0259	mg/Kg	SW8260B	. A		08/28/04	09/10/04	RM
1.2-Dibromoethane	0.0259 U	0,0259	mg/Kg	SW8260B	· A		08/28/04	09/10/04	RM
Chlorobenzene	0.0259 U	0.0259	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RM
Ethylbenzene	0.0259 U	0.0259	mg/Kg	SW8260B	A		08/28/04	09/10/04	RM
P & M -Xylene	0.0518 U	0.0518	mg/Kg	SW8260B	. A		08/28/04	09/10/04	RM
o-Xylene	0.0259 U	0.0259	mg/Kg	SW8260B	Α	•	08/28/04	09/10/04	RM
Styrene	0.0259 U	0.0259	mg/Kg	SW8260B	A	•	08/28/04	09/10/04	·RM
Bromoform	0.0259 U	0.0259	mg/Kg	SW8260B	A		•	09/10/04	
Isopropylbenzene (Cumene)	0.0259 U	0.0259	mg/Kg	SW8260B	 A			09/10/04	
Bromobenzene	0.0259 U	0.0259	mg/Kg	SW8260B	 A			09/10/04	
1,2,3-Trichloropropane	0.0518 U	0.0518	mg/Kg	SW8260B	Α .		,	09/10/04	
1,1,2,2-Tetrachloroethane	0.0518 U	0.0518	mg/Kg	SW8260B	A		•	09/10/04	
p-Dropylbenzene	0.0259 U	0.0318	mg/Kg	SW8260B	Λ Λ			09/10/04	•
orotoluene	0.0259 U	0.0259	mg/Kg	SW8260B	A		•	09/10/04	
4-Chlorotoluene	0.0259 U	0.0259	mg/Kg	SW8260B	A		08/28/04	•	RM
1,3,5-Trimethylbenzene	0.0237 0	0.0233	mg/Kg	3 # 020VD	Α	:	V0/20/U4	03/10/04	RM



SGS Ref.# Client Name Project Name/# Client Sample ID

Matrix

1045539016 BGES Inc.

4th & Gambell 04-038-01 Trip Blank

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time

Received Date/Time

09/14/2004 16:14 08/28/2004 10:05 08/30/2004 8:14

Technical Director Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogra	aphy/Mass Sp	ectroscopy							
tert-Butylbenzene	0.0259 U	0.0259	mg/Kg	SW8260B	A		08/28/04	.09/10/04	RMV
1,2,4-Trimethylbenzene	0.0259 U	0.0259	mg/Kg	SW8260B	Α.		08/28/04	09/10/04	RMV
sec-Butylbenzene	0.0259 U	0.0259	mg/Kg	SW8260B	. A		08/28/04	09/10/04	RMV
1,3-Dichlorobenzene	0.0259 U	0.0259	mg/Kg	SW8260B	Α		08/28/04	09/10/04	RMV
4-Isopropyltoluene	0.0259 U	0.0259	mg/Kg	SW8260B	· A		08/28/04	09/10/04	RMV
1,4-Dichlorobenzene	0.0259 U	0.0259	mg/Kg	SW8260B	Α			09/10/04	
1,2-Dichlorobenzene	0.0259 U	0.0259	mg/Kg	SW8260B	Α.		08/28/04	09/10/04	RMV
n-Butylbenzene	0,0259 U	0.0259	mg/Kg	SW8260B	. A	•		09/10/04	
Dibromo-3-chloropropane	0.104 U	0.104	mg/Kg	SW8260B	Α			09/10/04	
4-Trichlorobenzene	0,0518 U	0.0518	mg/Kg	SW8260B	Α	-		09/10/04	
Hexachlorobutadiene	0,0518 _. U	0.0518	mg/Kg	•	A	*		09/10/04	
Naphthalene	0.0518 U	0.0518	mg/Kg	SW8260B	A			09/10/04	
1.2.3-Trichlorobenzene	0.0518 U	0.0518	mg/Kg	SW8260B	A			09/10/04	
Methyl-t-butyl ether	0.0414 U	0.0414	mg/Kg	SW8260B	A	.*		09/10/04	
					•-		,		
Surroga te s							• • •		
Dibromofluoromethane <sun></sun>	102		%	SW8260B	Α	83-119	08/28/04	09/10/04	RMV
1,2-Dichloroethane-D4 <sun></sun>	105	•	%	SW8260B		83-122		09/10/04	
Toluene-d8 <sun></sun>	102		%	SW8260B		87-115		09/10/04	
4-Bromofluorobenzene <sun></sun>	105		%	SW8260B	•	46-133		09/10/04	
			,,,	5.1.52552		40-155	00/20/0 (05/10/01	
		•	• . •			•			
Solids	•)						
Total Solids	100		%	SM20 2540Q	A			08/31/04	CMM

SGS

SGS Ref.#

1045539008

Client Name

BGES inc.

Project Name/# Client Sample 1D 4th & Gambell 04-038-01 SP-8

Client Sample 1D Matrix

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time

09/14/2004 16:14

Collected Date/Time

08/28/2004 18:10

Received Date/Time

08/30/2004 8:14

Technical Director

Stephen C. Ede

Released By Shann Pastern

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	mit
Volatile Fuels Departme			•		. 1			٠.	
voiacite ideis Departme	nt					•	•	• ;	
Gasoline Range Organics	1.90 U	1.90	mg/Kg	AK101 8021B	\mathbf{A}^{\star}		08/28/04	09/10/04	MML
Benzene	0.00952 U	0.00952	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
Toluene	0.0381 U	0.0381	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
Ethylbenzene	0.0381 U	0.0381	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
P & M -Xylene	0.0381 U	0.0381	mg/Kg	AK101 8021B	Α	•	08/28/04	09/10/04	MML
o-Xylene	0.0381 U	0.0381	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
		•	•	•	· · · · · · · · · · · · · · · · · · ·			•	
Surrogates								•	٠.
1,4-Difluorobenzene <sun></sun>	95.5	•	%	AK101 8021B	. A . '	72-105	08/28/04	09/10/04	MML
4-Bromofluorobenzene <surr></surr>	106		· %	AK101 8021B	Α	50-150	08/28/04	09/10/04	MML
	•								
						•			•
Semivolatile Organic Fu	els Departmer	ıt į			•				
Diesel Range Organics	208	81.2	mg/Kg	AK102/103	В		08/31/04	09/01/04	JĊ
Residual Range Organics	.895	81.2	mg/Kg	AK102/103	В		08/31/04		JC
•							00,21,01		• •
Surrogates	•		•						
n-Triacontane-d62 <surr></surr>	111	.,	%	AK102/103	В	50-150	08/31/04	ng/n1/n4	· JC
5a Androstane <sun></sun>	101.		%	AK102/103		50-150 50-150	08/31/04		JC
Jan	101		. /6	AICIOZ/103	υ.,	00-130	00/31/04	09/01/04	,.
				• /					
Solids								•	
Total Solids	04.5		. 0/	01 700 05465	. 5			00 10 10 1	
1 om 201102	94.5		· %	SM20 2540O	В	•		08/31/04	CMM

1045539009

Client Name

BGES Inc.

Project Name/#

4th & Gambell 04-038-01

Client Sample 1D SP-9

Matrix

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time

Collected Date/Time Received Date/Time 09/14/2004 16:14 08/28/2004 18:17 08/30/2004 8:14

Technical Director

Stephen C. Ede

Released By

Sample Remarks:

Parameter	Results	PQL	Units	Mediod	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
									•
Volatile Fuels Department	•								
Gasoline Range Organics	1.61 U	1.61	mg/Kg	AK101 8021B	A		08/28/04	09/10/04	MML
Benzene	0.00803 U	0.00803	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
Toluene	0.0321 U	0.0321	mg/Kg	AK101 8021B	A ,	•	08/28/04	09/10/04	MMI
Ethylbenzene	0.0321 U	0.0321	mg/Kg	AK101 8021B	Α		08/28/04	09/10/04	MML
P & M -Xylene	0.0321 U	0.0321	mg/Kg	AK101 8021B	Α .		08/28/04	09/10/04	MML
o-Xylene	0.0321 U	0.0321	mg/Kg	AK101 8021B	Α,	•	08/28/04	09/10/04	MML
Sogates				•				· · · .	
1,4-Difluorobenzene <surr></surr>	95.5		%	AK101 8021B	Α	72-105	08/28/04	09/10/04	MML
4-Bromofluorobenzene <surr></surr>	118		%	AK101 8021B		50-150 ⁻	08/28/04	09/10/04	MML
		• .				·			
Semivolatile Organic Fuels	Department			• ;	8.				
Diesel Range Organics	408	78.2	mg/Kg	AK102/103	· B	~	08/31/04	09/01/04	JC
Residual Range Organics	1010	78.2	mg/Kg	AK102/103	. В		08/31/04	09/01/04	JC
	·					•			
Surrogates	•					. *			
n-Triacontane-d62 <sum></sum>	100		%	AK102/103	В	50-150	08/31/04	09/01/04	JC
5a Androstane <surr></surr>	84.2		· %	AK102/103	В	50-150	08/31/04	09/01/04	JC
	••						•		
Soli ds					·				
Total Solids	05.9		%	SM20 2540C	ъ.	. •	<i>'</i> .	08/31/04	CNALA
Total Solids	95.8		70	SM20 2540G	В	•		06/31/04	CIVIIVI



www.cteesl.com

CHAIN OF CUS DDY 1 1045539 CT&E Environmental Services Inc. Laboratory Division

CLIENT: BO	SES					CT&E	Referenc	0:	·	· 						
	esth Guyar	PHONÉ N	0:90716	44-29	(CO)					}					PAC	GEOF
PROJECT: //	My Can bell		-ø/ PWS		-	No.	SAMPLE	Preservati Used	ives (a)	1/2						
REPORTS TO:		•	•		·	C	TYPE	Analysis Required	7 i	7 7	00	\mathcal{T}	./	7	D)	111(6)
	65	FAX NO:	07,64	4-290	7.	O N	C = COMP	3/		$\langle v \rangle$	34.87	•/	/: /	/ }	/n (
INVOICE TO:		QUOTE#	/-			· A .	G = GRAB		\d _I		<u>\$</u> /	/ /	/ /		34	\mathcal{A}
l "	G <i>E</i> 7	P.O. NUM	BER:			N	GHAB	\\	$g \chi_{0}$	M'	<i>'</i>	/ /	·/			1
2) LAB NO.	SAMPLE IDENTIRO	ATION	DATE	TIME	MATRIX	R		10	P		/ /:		/:.	/ .	/ .	REMARKS
OAB	SLT-1		8/23	1005	50.	2	G	X	X				1			
2)	5LC-2		8/28	1048	50:1	2	6	R	X							
(3)	MLC-3	•	8/28	1144	5017	2	G	X	X				1.			
75	TIE-4		8/22		soil	2	Ć	X	×				1			
3	T28-5		8/28	1344	Soil	2	6	X	/							
3	ELC-6		8/28	1442	·	2	G	X	احر							
(A)	CP-7		8/28	1748	Soil	2	G	X	X					F	7	
8	51-8		8/20		50.1	2	G	X	X						2	D Mey I
3	38-9		8/23		50:1.	2	4	X	بحر							K (3/1111
<u> </u>	TP-1 SG		8/28/09	109:40	Soil	2	6-	X	X	×				1	_	
Collected/Rolin	quished By: (1)	Date	Time	Received	Ву:			Shi	pping C	arrier:		· · · ·				Temperaturs C:
and	2/3/	8/30 g	814					Shi	pping T	icket No):		·			
Relinquished B	y: (2)	Date	Time	Received	Ву:			Dat	a Deliv	erables:			`.	_		Chain of Custody Seal: (Circle)
					:	• • •		Lev	eli L	evel II	Level III	EDO T	ype:			INTACT BROKEN ABSENT
Relinquished B	ly: (3)	Date	Tine	Received	Ву:			Req	juested 54 m	Tuman	Dund Tim	e and Sp	pecial in	struciio	ns: B と	51-9
Relinquished B	y: (4)	Patro 2	Tint	Received	For Laborat		u	÷	•			•	• • •	:		

CHAIN OF CUE ONV DECORD

Michigan
 West Virginia

Nsw Jersey
Now Orleans

CHAIN OF COCODY RE	
T&E Environmental Services Inc.	104553
iboratory Division " = = = = = = = = = = = = = = = = = =	

CLENT: BG	6ES	•	CT&E Reference:								A :						
CONTACT:	Keith Goyer	PHONE N	NO: (407) 6	544-2°	100			·				<u>.</u>				PAC	GE_Z_OF_Z_
PROJECT: 4	+the Gambell			SID#:		No.	SAMPLE	Preservat Used		0	L.						
REPORTS TO:	D C = C	<u></u>				Ç		Analysis Required	120	3/6	1	1	<i>T</i>	T.	7	7	77
<u>-</u>		FAX NO:	(907) 64	<u>-4-291</u>	21	0 N T	C= COMP.	3/	1,4/	AN AN	10/		'· /	, ·	/ ./	/	/ /
INVOICE TO:	BGES	QUOTE# P.O. NUMI	ABER: O4-	.038-C	21	A - N E	G = GRAB	1/3		Co. Co. Harris	988.MS			/			
LAB NO.	SAMPLE IDENTIFIC	CATION	DATE	TIME	MATRIX	R		04.9	1/2	/3				<u> </u>		_	REMARKS
(AB	TP-2 57		8/28/04	12:24	Sor	2	G	X	X	X			* * .				
(2)	TP-3 57		8/28/04	14:17	Soil	2	G-	X	X	X							
(13)	TP-4 53	•	8/28/04	1537	Soil	2	6	X	X								·
(4)	TP-5 52		8/28/14	1626	Soil	2	G	X	X								
TO Y	TP-652		8/28/194		Soil	2	G	X	X			·					,
MOA	TripAl			140												-	
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Collected/Relin	linquished By: (1)	Date 8/30	Time	Received	Ву:			•	ipping C						•		Temperature C:
Relinquished B	NY	Date	Time	Received	Die.		<u> </u>			ricket Nerables			· · · · · ·			•	Chain of Custody Seal: (Circia)
A tom identifica -	>y- (∸)		'""	I IGOGIYUU.						erables evel II		III -EC	D Type	e:	•	٠	INTACT BROKEN ABSENT
Relinquistied B	Ву: (3)	Date	Tine	Received	Ву:			Rec	Juested	1 Tumar	T bņuo	ime ar	nd Spec	ial ins	stnietion	15:	<u> </u>
Relinquished B	Зу: (4)	Date	Time		For Laborate		el										

SGS	

SAMPLE RECEIPT FORM

SGS WO#:

45	

No NA		· · · · · · · · · · · · · · · · · · ·
γ	Are samples RUSH, priority, or w/n 72 hrs. of hold time?	Due Date: 8 4 - 9: 9/1 , rest 9/
<i>]</i> — —	If yes have you done e-mail notification?	Received Date: 8/30/4
~ ~ ~		
_ :		Received Time: 10.814
	If yes, have you spoken \vith Supervisor?	"Is date/time conversion necessary?
\bigcirc	Archiving bottles - if req., are they properly marked?	# of hours to AK Local Time:
- 	Are there any problems? PM Notified?	Thermometer ID:
7		Cooler ID Temp Blank Cooler Tem
	Were samples preserved correctly and pil-vorifled?	
•		
		CULTURE COLUMN
	If this is for PWS, provide PWSID.	%C
$\overline{}$	Will courier charges apply?	0,000 (U) (U) (U) (U)
	Method of payment?	*Temperature readings include thermometer opposition fee
	Determined of payments	Delivery method (circle all that apply): (Client)
	Data package required? (Level: 1 / 2 / 3 / 4)	
· ·	Nofes:	Alert Courier / UPS / FedEx / USPS 7
_ 😕	Is this a DoD project? (USAGE, Navy, AFCEE)	AA Goldstreak / NAC / ERA / PenAir / Carlil
		Lynden / SGS / Other:
This section	must be filled out for DoD projects (USACE, Navy, AFCEE)	Airbil/#
	must be fulled out for DOD projects (USACE, Navy, AFCEE)	Additional Sample Remarks: (\(\sigma\) if applicable)
es No	1 2000	
	Is received temperature 4 ± 2°C?	Extra Sample Volume?
	Exceptions: Samples/Analyses Affected:	Limited Sample Volume?
• • • • • • • • • • • • • • • • • • • •		Field preserved for volatiles?
•		Field-filtered for dissolved?
		Lab-filtered for dissolved?
, ·		Ref Lab required?
)	Rad Screen performed?	
<i></i>	Result:	Foreign Soil?
• •		
	Was there an airbill? (Note # above in the right hand column)	This section must be filled if problems are found.
	Was cooler sealed with custody seals?	Yes No
	# / where:	Was client notified of problems?
	Were seal(s) intact upon arrival?	
'	Was there a COC with cooler?	Individual contacted:
·	Was the COC filled out properly?	Via: Phone / Fax / Email (circ/e one)
	Did the COC indicate COE / AFCEE / Navy project?	Date/Time:
	Did die COC and samples correspond?	Reason for contact:
	Were all sample packed to prevent breakage?	
	Packing material:	
	Were all samples unbroken and clearly labeled?	
	Were all samples sealed in separate plastic bags?	
	Were all VOCs free of headspace and/or MeOH preserved?	l'
	Were correct container / sample sizes submitted?	Change Order Required?
	Is sample condition good?	SGS Contact:
	Was copy of CoC, SRF, and custody seals given to PM to fax?	
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	sign): (print): eck one): waived required performed by:	WHay

SGS

SAMPLE RECEIPT FORM (page 2)

1045529

SGS

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#			Test			┝┐	,1				er V		•	Other	-	1	$\overline{}$			Ty		Other	Preservative Other							
*	Container ID	Matrix	i est	8	TB	11	500 mL	250 mL	125 mL	60 mL	40 mL	8oz (250 mL)	4oz (125 mL)	Outer	AG	8	HDPE	Nalgene	Cubie	S S	Septa	Onlo	None	HCI	HNO	H ₂ SO ₂	MeOH	Na ₂ S ₂ O ₃	NaOH	Outer
										·						L	<u> </u>													
1-15	A	ス	GROBTEX								_		15	·	X	_					×		·				مر			··
4	В	2	DROIRRO										15		ط	<u> </u>	ļ. -				_	•	×							<u>. </u>
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